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PLANNING AREA ANALYSIS

the economic, social, and environmental values of the east mojave planning units

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JANUARY 1977

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EAST MOJAVE PLANNING AREA ANALYSIS

INTRODUCTION

The East Mojave Planning Area Analysis (PAA) summarizes social, economical, cultural, and environmental information gathered for planning purposes. This document is intended to assist those responsible for resource management decisions in understanding the existing conditions, constraints, expressed values, and the economics of the East Mojave Planning Units and their relationship to the California Desert.

Three main portions make up this PAA. A brief environmental, economic, and social overview of the East Mojave is found in the first section. Expanded information from which this summary was derived can be found in the Unit Resource Analysis and the appendices of the PAA. These appendices are the second section of this document. The final portion of the PAA is the Summary Decision Guide. This large chart calls to the attention of the decision maker the significant features, values, and activities identified in the East Mojave Planning Area. The Summary Decision Guide is based on 31 geographic sub-areas defined for the PAA. Each of these areas, in addition to having it's resources identified, has been analyzed for it's susceptibility to impact by surface disturbances, visual intrusions, and habitat disturbance.

The Summary Decision Guide is a synthesis of significant information and an analysis of sensitivity to aid decision making.

ENVIRONMENTAL AND CULTURAL VALUES

The remarkable natural, scenic, and cultural values of the East Mojave are well known to many natural scientists, environmentalists, archaeologists, and historians, as well as a small but increasing sector of the general public. Environmental, scenic, and cultural resources are of such quality that numerous areas within the planning units have been officially recognized for their values. Two of the 19 recreation lands in the California Desert designated by the Secretary of the Interior are in the East Mojave Planning Area. Of the top ten most used education and research areas in the California Desert, five are in the planning units. Almost half (15 out of 31) of the East Mojave sub-areas identified for the Planning Area Analysis were evaluated as being significant on a desert wide basis. The East Mojave Planning Area, because of it's geologic, soils, wildlife, vegetative, scenic, and cultural resources is an extraordinary area of the California Desert.

GEOLOGY and SOILS ●

The several stages of igneous activity, metamorphism, and the many episodes of deformation resulting in thrust faulting have complicated the geology of the East Mojave. These geologic processes have produced numerous types of rocks which range in age from the oldest (Precambrian) to the present.

Geomorphically the East Mojave is characterized by isolated mountain ranges and ridges separated by alluvium-filled, irregular large valleys. Dividing the planning units in half is the northeast trending Providence-Mid Hills- New York Mountains. The main valleys are Ivanpah Valley, Kelso Wash, Lanfair Valley, Devil's Playground, Piute Valley, the northern part of Fenner Valley and Halloran Wash. Ivanpah Valley and Kelso Wash line up in a northeasterly orientation, but interestingly drain in opposite directions as they are separated by an inconspicuous northwest trending divide near the town of Cima. Lanfair and Piute Valleys drain through Piute Wash into the Colorado River. The rest of the valleys have internal drainage systems, with some displaying playas.

A wide range of soils are found within the planning units. Some of the many that are found include: soils with sandy textures with gravel and cobbles; soils with medium textures; soils with calcium carbonate (caliche) accumulations; fine textured soils found in playa areas; soils with a developed horizon indicating age or formation during a different moisture regime; shallow soils; and upland soils. Other areas such as escarpments, rough broken land, ephemeral streams, dunes and lava flow areas are also found.

WILDLIFE and VEGETATION ●

The wildlife and vegetative resources in the East Mojave area reflect the intermingling of three major North American Deserts: the Great Basin, Mojave, and Sonoran Desert. The planning area is primarily in the Mojave Desert but contains floral and faunal elements of the Great Basin and Sonoran Deserts and some elements of the California Coastal Zone. The Mojave Desert is considered a unique floristic unit and is commonly designated a floristic province. Many plant species are distibuted only within this area. Enclaves of flora characteristic of each of the surrounding provinces occur within the boundaries of the East Mojave area. Canyons of the New York Mountains have species of manzanita, California lilac, oak and silk tassel which are characteristic of coastal California. The Mid Hills have large stands of Great

Basin sagebrush and Utah juniper. The strongest affinity however, is with the Sonoran Desert whose boundary is often drawn in the near vicinity of the southern boundary of the planning units. Sonoran species such as teddy bear cholla, smoke tree, and ocotillo are found extending a dozen or so miles into the planning area at the southeast corner.

Overall, the planning area may be considered rich floristically. Of the 1,000 species of vascular plants estimated for the entire California Desert area, 706 are recorded as being present in the planning units. Currently 25 plants occurring in or nearby the planning area appear on the rare or endangered species list of either the California Native Plant Society and/or the new list recently proposed by the U.S. Fish and Wildlife Service.

The intermingling of the three desert systems has produced about 35 wildlife habitat types. Common elsewhere in the desert and also present here are the playas, saltbush, creosote covered flats and alluvial fans, and joshua tree woodlands. There are several important, unique, or rare habitats.The East Mojave is unusual in the complexity and density of the joshua tree, Mojave yucca, and spanish bayonet communities, which reach their ultimate on Cima Dome. Cima Dome joshua trees are matched nowhere else in the California Desert. There are 7 wash types including catclaw (acacia), smoke trees, and desert willows. Higher elevations support grassland, sagebrush, blackbrush, pinyon-juniper woodlands, and such special habitats as a small white fir forest, and pinyon-junipers with oak. There is one very special, fragile, and limited community-the desert oasis at Fort Piute.

The diverse habitats support almost 300 species of wildlife. Thirty-six species of reptiles, 206 of birds, and 47 of mammals have been observed. Some of the more notables are the gila monster (one of three reported in California), desert tortoise, Mojave fringe-toed lizard, regal ring-necked snake, and desert striped whipsnake. Significant birds include the Prairie Falcon, Bendire's Thrasher, Crissal Thrasher, Gray Vireo, and Lucy's Warbler. There are excellent populations of dove and Gambel's Quail. The East Mojave Desert has one of the finer bat faunas of the California Desert. Also there are populations of rock squirrels in pinyon-juniper rockland, a relict population of dusky-footed woodrats, porcupines, mountain lions, and desert bighorn sheep.

In all of the California Desert there is no finer grouping of different wildlife habitats than in the East Mojave, both from the viewpoint of the total number of species and the total number of animals. The Kelso Dunes, Granite, Providence, and New York Mountains, and the Cima Dome are the finest examples of their particular habitat types in California, as well as being the best preserved at this time.

SCENIC QUALITY ●

Many observers feel that the East Mojave embodies the finest scenery in the California Desert. There is little question as to the excellence and diversity of desert scenery here. Jagged peaks emerge 3,000 feet from a broad intervening landscape punctured with sand dunes, flat-topped mesas, rolling hills, and red volcanic spires. Extensive stands of joshua trees and yuccas are foreground features throughout much of the area, while barrel cacti and yellow teddy bear chollas dot the desert scene with vivid splashes of red and yellow. Cinder cones - 32 in all - impart a lunar landscape to the area's northwest corner, while nearby the Devil's Playground presents a stark expanse of dune sand, epitomizing the desert itself.

Pinyon pines and junipers cover the upper slopes of the higher ranges, while the ever-flowing waters of Piute Creek, at the far eastern end of the planning units, guarantees year round abundance of lush, riparian vegetation and wildlife. Fields of flowers in springtime and smoke tree washes add further floristic variety to the washes, lava fields, and bajadas in this remarkable, picturesque planning area.

CULTURAL RESOURCES ●

The East Mojave Planning Area contains some of the most unique cultural resources in the entire California Desert. These vary from an extensive concentration of rock art (i.e., petroglyphs and pictographs) to a major segment of the historic Mojave Road.

Although more than 1,030 archaeological and historical sites have been recorded in the East Mojave, this represents only an estimated 9 percent of the planning area's cultural resource site potential. More than 90 percent of the potential archaeological and historical sites are estimated to be presently unrecorded. A site potential of roughly 12,000 archaeological sites and about 1,500 historical sites can be estimated for the East Mojave.

Specific archaeological localities of the East Mojave includes: the prehistoric village with rockshelters, petroglyphs, pictographs, and quarries in Wild Horse Canyon; the high density of lithic scatters and rockshelters on Wild Horse Mesa; the excellent petroglyphs of Woods Wash, Cow Cove, Aiken's Wash, Grass Canyon, and Lanfair Valley; the large open sites, rockshelters, and pictographs of the Granite Mountains; the numerous clusters of fire affected rocks with associated pottery, milling assemblage, and lithic tools at Ivanpah Playa; the large roasting pits associated with the limestone of the Mescal Range; the extensive string of campsites, milling sites, and lithic scatters at Piute Gorge; and the Piute Spring segment of the aboriginal Mojave Trails with associated campsites and petroglyphs.

The historical features of the East Mojave include: the remains of one of the most desolate official U.S. Army camps in the west - Camp Rock Spring (1867); the late 1860's army outposts and relay stations at Piute Spring (Fort Piute) and Marl Spring; the nationally significant Mojave Road (circa 1859-1883) linking California with the southwest; the 1880's mining townsite of Providence with the associated Bonanza King Mine; the 1890's town of Vanderbilt and the Boomerang Mine Mill site; segments of two early transcontinental railroads - the Atlantic and Pacific Railroad (1883), and the San Pedro, Los Angeles, and Salt Lake Railroads (1905); two abandoned local railways - the Nevada Southern (California Eastern) Railway (1893-1923), and the Barnwell and Searchlight Railway (1907-1923); homesteading and small mining operations from about 1910 to 1925; and Camp Ibis - a World War II desert training camp.

◆

ECONOMIC VALUES

The East Mojave Planning Units, located in San Bernardino County, consists of an assortment of public and private lands that overall total 1,907,890 acres - larger than the State of Delaware and four times the size of Orange County. Approximately 81 percent is public lands. Southern Pacific Company owns about 10 percent of the land and the State of California's holdings account for about 4 percent. The remaining 5 percent is in private ownership.

POPULATION and EMPLOYMENT ●

The East Mojave Planning Area is relatively an unpopulated area. San Bernardino County estimates that there are only about 250 people who live within the planning area boundaries. These people mostly live in small settlements which have less than 25 people.

The 250 residents of the East Mojave Planning Area represent approximately .06 percent of the 440,000 residents of the California Desert, or one-sixteenth of one percent of the total population desert wide. Discussions with several East Mojave residents, as well as with persons acquainted with these residents, indicate that the residents of the East Mojave are generally quite satisfied with their lifestyle and the physical environment in which they live. Ostensibly, the East Mojave residents are there because they "want to be".

Ranching, mining, and the railroads have been the dominant lifestyle associations of the East Mojave. Although the ranching and railroad associated lifestyles persist today, mining activity is virtually nonexistent except for some occasional prospecting and experimental extraction of mineralized "black sand" on the Kelso Dunes.

The largest settlements in the planning area are Kelso, Goffs, and Nipton. Kelso has about 50 people who work primarily for the Union Pacific Railroad. The smaller communities of Goffs and Nipton are also located along a rail line but employment in these towns is not based on the railroads. There are also small settlements with associated commercial businesses located at almost every off-ramp along Interstate Highway 15.

Isolated dwelling units are found throughout the East Mojave. The number of full-time residents in the area is not known, but probably numbers around 40. There are a number of intermittently used dwellings which are used mostly on weekends. Most of the people living in these isolated dwellings are prospectors.

Immediately outside the planning units are some large population centers. The urban area of Las Vegas is only 40 miles to the northeast and has a population of 370,000. The small communities of Searchlight, with 425 people and Jean, with 90 people, are also only a few miles from the California border in Nevada.

Within California there are 4 towns close to the planning area. Needles, the largest with 4,100 people, is located 5 miles to the southeast. The town of Baker has 830 people, while the community of Mountain Pass has 150 people. Both of these communities are on Interstate Highway 15. On Interstate Highway 40 to the west is Ludlow with 180 people.

Approximately 100 persons are employed in the East Mojave area. These people are employed by San Bernardino County (road mantenance and police protection), the State of California (highway patrol, freeway maintenance, Providence Mountains State Recreation Area (Mitchell Caverns), State Fish and Game, Union Pacific and Southern Pacific Railroads, Southern California Gas Company. Southern California Edison, Pacific Telephone and Telegraph, various outlets (stores, gas stations), cattle ranches, and the federal government. From a desert wide perspective, employment in the East Mojave is less than one half of one percent for each of the employment sectors listed above, except for cattle ranching. The East Mojave accounts for approximately 25 percent of total employment in livestock production in the California Desert. Within the planning area, however, employment by government accounts for 43 percent of total employment, ranching 23 percent, and railroad employment 21 percent. The utility companies and retail trade account for the remaining 13 percent.

Taxes on land and improvements in the East Mojave yields the County of San Bernardino approximately 1.25 million dollars yearly. Approximately 83 percent of this total is attributed to taxes on utilities (i.e., power lines, pipe lines, communication sites, telephone lines). Private land and other improvements account for approximately 13.5 percent, livestock and range improvements account for 1.5 percent. The remaining 2 percent is attributed to taxes on mining claims. From a county wide perspective, the East Mojave generates 0.64 percent, or a little over one half of one percent of the total revenue collected by San Bernardino County from taxes on private property and improvements in 1976.

MINING ●

Intensive mining activity occurred in the East Mojave between 1865 and 1892. Since 1892 the East Mojave has been subject to cycles of prospecting and mineral extraction stimulated by the completion of the Union Pacific Railroad, as well as the fluctuation in prices for tungsten, iron, gold, silver, and copper. Although 3,016 known mining claims have been staked in the East Mojave and filed with the County of San Bernardino, virtually no productive mining activity is now occurring in the planning area. However, this is not to say that the potential for future mining activity does not exist. Recent geologic and electronic sensing data reveals a combination of rock types of different ages, as well as historical geologic processes which have created a geologic environment favorable to the existence of mineral deposits.

The East Mojave also contains areas which may have potential for geothermal steam, oil and gas, and sodium deposits. Other known mineral resources within the planning units include sand and gravel, and cinders.

RANGE ●

Perennial rangeland in the East Mojave is considered the most productive in the California Desert. One measure of this productivity is an arbitrary unit known as an "animal unit month" or AUM. One AUM is enough feed to sustain a 1,000 pound cow and her calf (up to 6 months old) for one month. Looking at rangeland in terms of AUM's, the East Mojave contains approximately 43 percent of the total AUM's utilized on the California Desert but less than one half of one percent (0.43 percent) of the total AUM's available on all rangeland in the State of California.

From an economic perspective, the East Mojave produces between one half million and one million dollars in gross receipts from beef cattle sales for it's nine ranches. Compared to state wide sales of livestock (sheep, cattle, and calves), the East Mojave produces less than one tenth of one percent of gross livestock receipts. From a desert wide perspective the East Mojave represents approximately 25 to 50 percent of gross receipts from livestock sales. Additionally, however, the present carrying capacity of the East Mojave range appears to be below it's potential. In 1965, ranchers in the East Mojave collectively paid BLM $48,000 in grazing lease fees for the use of 48,000 AUM's from BLM rangelands in the planning area. This amount was approximately 42 percent of all grazing lease fees collected in the California Desert and 29 percent of all grazing lease fees collected on BLM grazing lease lands in California. In addition, the County of San Bernardino is entitled by law to share the grazing lease fees collected by BLM. The county received 50 percent of the yearly grazing lease fees collected by BLM in the county. The county utilized these fees for range improvements when recommended by BLM. A range improvement committee composed of various livestock operators who pay these fees to BLM are an important part of the range improvements program. The BLM, the county, and the range improvement committee work closely together in all range improvement efforts.

Many of the ranchers in the East Mojave also lease grazing land from the Southern Pacific Railroad. Although this land is suitable for grazing, it is mostly ephemeral range and does not necessarily match the high quality of BLM rangelands. In 1976, participating East Mojave ranchers collectively paid Southern Pacific Railroad approximately $48,000 in grazing lease fees. For this amount these ranchers were entitled to use approximately 24,000 AUM's from Southern Pacific lands.

VEGETATION ●

Commercial vegetative harvesting occurs on Southern Pacific land. Vegetative sales are presently confined to Cactus and Yucca (Y. schidigera). The Cacti is carefully harvested and sold to nurseries for stock. The Yucca is harvested and processed for use in fertilizers, root beer, foam, and shampoo. In addition, 2 species of Yucca, Y. schidigera and Y. brevifolia, are of interest to industry because of their chemical components. The producers of steroid drugs, a multimillion dollar industry, are presently showing an active interest in the fruits of the joshua tree, particularly the Taxon Yucca (brevifolia var. jaegeriana) which grows in many areas of the planning area.

RECREATION ●

The East Mojave is one of the most valuable recreation areas in the California Desert, containing some of the desert's finest scenery, notable features and opportunities for a wide variety of recreational activities. Much of it has been designated "national recreation land" by the Secretary of the Interior.

Total recreation use of the East Mojave is relatively low at the present time as compared with certain heavily used areas of the desert. An estimated 44,000 visitor-use days were spent in the East Mojave in 1975. This figure is not necessarily an index to future use. Only in recent years has the California public, limited in it's outdoor recreational opportunities by population growth and urbanization, moved outward and eastward, discovering and utilizing the spaces and resources of the California Desert.

The East Mojave may be enjoyed by a greater diversity of outdoor recreationists than many other parts of the California Desert. The most popular identified activities are sightseeing, camping, education and research, sand sailing, rock and mineral collecting, and hunting. Other recreational uses include: hiking, backpacking, motorcycling, jeeping, shooting, photography, painting, rock climbing, metal hunting, and nature study.

Two areas in the East Mojave receive intensive use (more than 1,000 annual visitor-use days per square mile). These are Providence Mountains State Recreation Area (Mitchell Caverns) and Hole-in-the-Wall Campground and adjacent area. Heavy use occurs at the Hackberry Wash rock collecting site and Mid Hills Campground. Moderate use intensity takes place at Ivanpah Lake, Fort Piute, Kelso Dunes, Granite Mountains, Cima Dome, New York Mountains, and Providence Mountains. Low intensity use occurs at Ivanpah Mountain and Devil's Playground. The balance of use is quite dispersed.

Most recreation in the East Mojave is oriented toward the observation and enjoyment of the area's scenery and natural values. Education and research are among the highest identified uses. Five of the most studied sites in the desert, according to a preliminary report on educational and research use in the desert, are in the East Mojave - including Cima Dome, Granite Mountains, Kelso Dunes, Providence Mountains, and New York Mountains. Excellent hunting opportunities for upland game birds exist in the area. About one fourth of San Bernardino County's annual buck harvest takes place here.

Rock collectors can often be found in Hackberry Wash, a favorite collecting site. The caves of the Providence and Mescal Ranges make the East Mojave one of the best caving areas in the desert. Ivanpah Lake is the site of the International Land Yacht (sand sailing) Competition, and here sand sailors can be found most any weekend. Backpacking and hiking, not generally thought of as desert recreational activities, have suddenly begun to appear in some conspicuous degree in the Providence, New York, and Granite Mountains. Jeep enthusiasts enjoy exploration along the area's numerous roads, as do motorcyclists who may occassionally be seen riding in the area. The Barstow-Vegas race route crosses the northwest corner of the planning units. The East Mojave has long been popular with painters and photographers, though they are inconspicuous elements of the recreational spectrum. The town of Kelso is one of the most popular birdwatching locations in the Califormia Desert during spring and fall migrations.

The economic value attributable to recreation use in the East Mojave is difficult to estimate. Research revealed few, if any, reliable indicators of expenditures attributable to recreation use of the planning area.

* * *

INTEREST GROUP VALUES ●

Interest group value orientations, related to the East Mojave Planning Area, range from strong preservation and intensive resource management sentiments, to complete freedom of the individual with respect to resource use as well as resource management policy. These interest groups also perceive varying degrees of conflict between their respective value orientations.

An analysis of these perceived value conflicts and an interpretation of the degree of conflict between them related to resource use, shows that most conflicts can be adequately resolved to the satisfaction of the conflicting groups. However, it appears that some irreconcilable conflicts exist between the value orientations of several interest groups. This irreconcilability takes two forms.For example, one group may be willing to accept a compromise but the other group feels that no compromise is possible - in fact - absurd. The other form is where neither side feels that compromise is possible nor justified, - (e.g., it's all or nothing).

From the point of view of organized conservation groups and individuals with a conservation oriented ethic, no compromise is possible concerning the Kelso Dunes relative to off-road vehicle use. The same holds true for universities and colleges conducting biological research and education programs involving the Kelso Dunes. On the other hand, off-road enthusiasts who would like to see the Kelso Dunes open, feel that off-road use and education/research uses of the dunes are compatible. The off-road interests feel that the dunes can be "zoned" for both uses - off-road interest would use only one part of the dunes and the remainder could remain closed.

Organized conservation groups, individuals with a conservation oriented ethic, and universities conducting biological research and education programs feel that mining should not be permitted in the following areas:

Kelso Dunes
Cima Dome
New York Mountains
Granite Mountains
Fort Piute
Providence Mountains

They feel that no compromise is possible on this point. Alternately, the mining interests feel that the above areas should remain open for mineral exploration and development; they feel that no compromise on this point is possible or even desirable.

The Social Values Chart which accompanies this section is self-explanatory and points out where and why interest group values conflict. The chart also shows where conflicts appear to be resolvable between interest groups, as well as where conflicts appear to be irreconcilable.

DESERT WIDE COMPARISON
OF
EAST MOJAVE SOCIAL VALUE ORIENTATIONS

PUBLIC OPINION

Between November 8-13, 1975, the Field Research Corporation under contract with the Bureau of Land Management, conducted a statewide survey of California residents to obtain preliminary data regarding use, recreational demand, and attitudes towards the California Desert. The results of this survey showed that Californians expressed strong protective sentiments regarding the California Desert. Ranked responses show that *"more protection of wildlife and ecology"* is the most important issue listed amongst Californians . *"Protection of important historic areas"* and *"less development of all kinds"* are next as issues of citizen concern. Southern Californians and Northern Californians expressed the same concern for protecting desert integrity, but a slightly greater number of Southern Californians desire more campgrounds and recreational opportunities. Desert users and nonusers, alike, expressed similar, strong protective concerns. In addition, ranked responses show that Californians feel that "more motels and eating places" and "more places for use of off-road vehicles" have by far the lowest priority, or least importance, amongst the issues listed in the survey.

Interestingly, public input solicited by the Bureau of Land Management concerning the East Mojave revealed that a large majority of the 252 persons who participated in these public input sessions were concerned with maintaining existing access to the East Mojave, and lessening environmental restrictions of all kinds. Although *"protective"* sentiments were expressed, the majority sentiment was oriented towards *"use"* of the East Mojave, and a lessening of restrictions on grazing, mining, and especially off-road vehicle recreation.

Approximately two-thirds of those who participated in these public input sessions considered themselves members of a particular group (e.g., rockhound clubs, off-road vehicle clubs, utility companies, grazing associations, mining companies, rifle and pistol clubs, conservation organizations). Recreation groups, (especially off-road vehicle clubs and rockhound clubs) were the most numerous groups represented at these meetings. The remaining one-third of those who participated considered themselves non-group affiliated participants.

The result of the East Mojave Citizen input sessions contrasts sharply with the results obtained from the statewide survey. This does not imply, however, that the statewide opinion survey is somehow inaccurate, or that the comments received at the East Mojave Citizen input sessions do not reflect the values of the people who participated in these sessions. Quite the contrary; the statewide opinion survey was a statistically accurate random sample of the general public in California, and the opinions expressed at the East Mojave Citizen input sessions were an accurate reflection of the values of the interest groups and individuals who participated in the Citizen input sessions.

The contrast between the highly *"protective"* sentiments expressed by the majority of the general public and predominant *"use"* orientation of those at the East Mojave Citizen input sessions is due to the great many *"use"* oriented groups (mining, off-road vehicle, grazing, rockhounds, etc.) which were represented at these sessions; whereas, persons participating in the statewide survey represented a broader range and mixture of opinions and interests.

EAST MOJAVE PLANNING UNITS

SOCIAL VALUES CHART ★

INTEREST GROUP VALUE PERCEPTIONS AND CONFLICTS

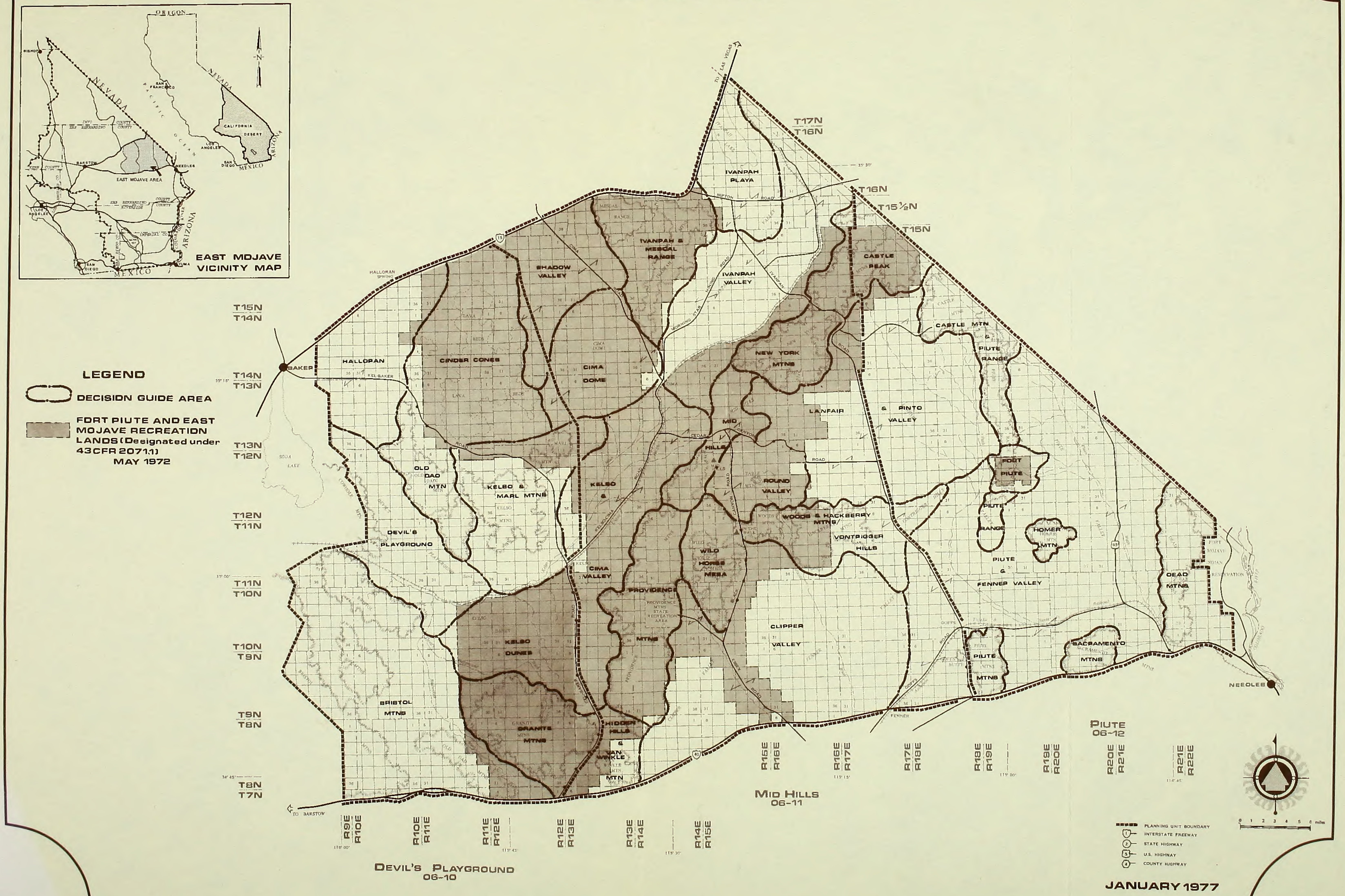
INTEREST GROUP	INTEREST GROUP VALUE ORIENTATION	ORGANIZED CONSERVATION GROUPS AND INDIVIDUALS WITH STRONG CONSERVATION ORIENTED ETHIC	UNIVERSITIES— EDUCATION/ RESEARCH (PURE AND APPLIED)	RESIDENTS OF KELSO	CATTLE RANCHERS	ORV ENTHUSIASTS	HUNTERS	ROCK AND FOSSIL COLLECTORS	SAND SAILORS	MINERS AND PROSPECTORS	LANDOWNERS	AREAS OF SPECIAL INTEREST	INTEREST GROUP SUGGESTIONS FOR BLM MANAGEMENT
Organized conservation groups and individuals with strong conservation oriented ethic.	Preserve and maintain resources. Do not allow destructive resource uses. Controlled access.				★	✪ (Kelso Dunes) ★ (Remainder of areas of special interest)	☆	☆	☆	✪		Kelso Dunes Cima Dome New York Mts. Granite Mts. Fort Piute Cinder Cones Providence Mts. Mid Hills	- Eliminate mining - Permit ORV on designated roads and trails only - Intensively manage grazing - Control burros
Universities — Education/ Research (Biological) (Pure and Applied)	Preserve and maintain resources. Do not allow destructive resource use. Some resource utilization permissible with proper management.				★	✪ (Kelso Dunes) ★ (Remainder of areas of special interest)	☆	☆	☆	✪		Same as above	- Intensively manage grazing - Permit ORV on designated roads and trails only
Residents of Kelso	BLM should insure that the town of Kelso is protected from vandalism and disturbances caused by recreational uses.					★						Kelso Dunes and Town of Kelso	- Leave Kelso Dunes closed - Do not designate ORV play areas near Kelso
Cattle Ranchers	Grazing should be dominant use of East Mojave. Lifestyle and livelihood depends on grazing.	★	★			★	★			★	★	Grazing Allotment areas	- Control hunting and mining - BLM should not overly regulate grazing lands
ORV Enthusiasts	Minimize controls on recreation use and access. Public has right to use land for vehicle recreation. Limit all restrictions.	★	★		★				☆			Kelso Dunes All roads and trails Ivanpah Lake	- Eliminate mining from Ivanpah Lake - Open Kelso Dunes - Do not close roads and trails - Do not exclude ORV from any area
Hunters	Maintain quality habitat for hunting.	☆	☆		★	★				★		New York Mts. Providence Mts. Cima Dome Granite Mts. Piute Range	- Control burros and grazing - Manage habitat for hunting
Rock and Fossil Collectors	Keep all area open for rock collecting. Minimize controls on collecting and access.	★	★				☆					Providence Mts. Hackberry Mts.	- Do not limit access
Sand Sailors	Maintain Ivanpah Lake for sand sailing.					★				☆		Ivanpah Lake	- Eliminate M/C racing and mining (drilling) from Ivanpah Lake
Miners and Prospectors	Do not close any areas to mining.	✪	✪			★		☆				Whole East Mojave	- Leave East Mojave open to mineral exploration
Landowners	BLM should protect private land from trespass inducing uses.				★	★						Private Land	Protect private land from trespass

★ Compare each interest group listed on the left hand side of the chart with all other groups listed across the top for value conflict perceptions; not vice versa because the degree of value conflict perceived by each interest group relative to the values of the other groups is not necessarily identical.

COMPATABILITY INTERPRETATION

✪ - Compromise Appears Unlikely
★ - Compromise Likely but Difficult
☆ - Compromise Likely - Little Difficulty Anticipated
BLANK - No Known Conflict

EAST MOJAVE
PLANNING AREA ANALYSIS
DECISION GUIDE AREAS



JANUARY 1977

APPENDIX
I

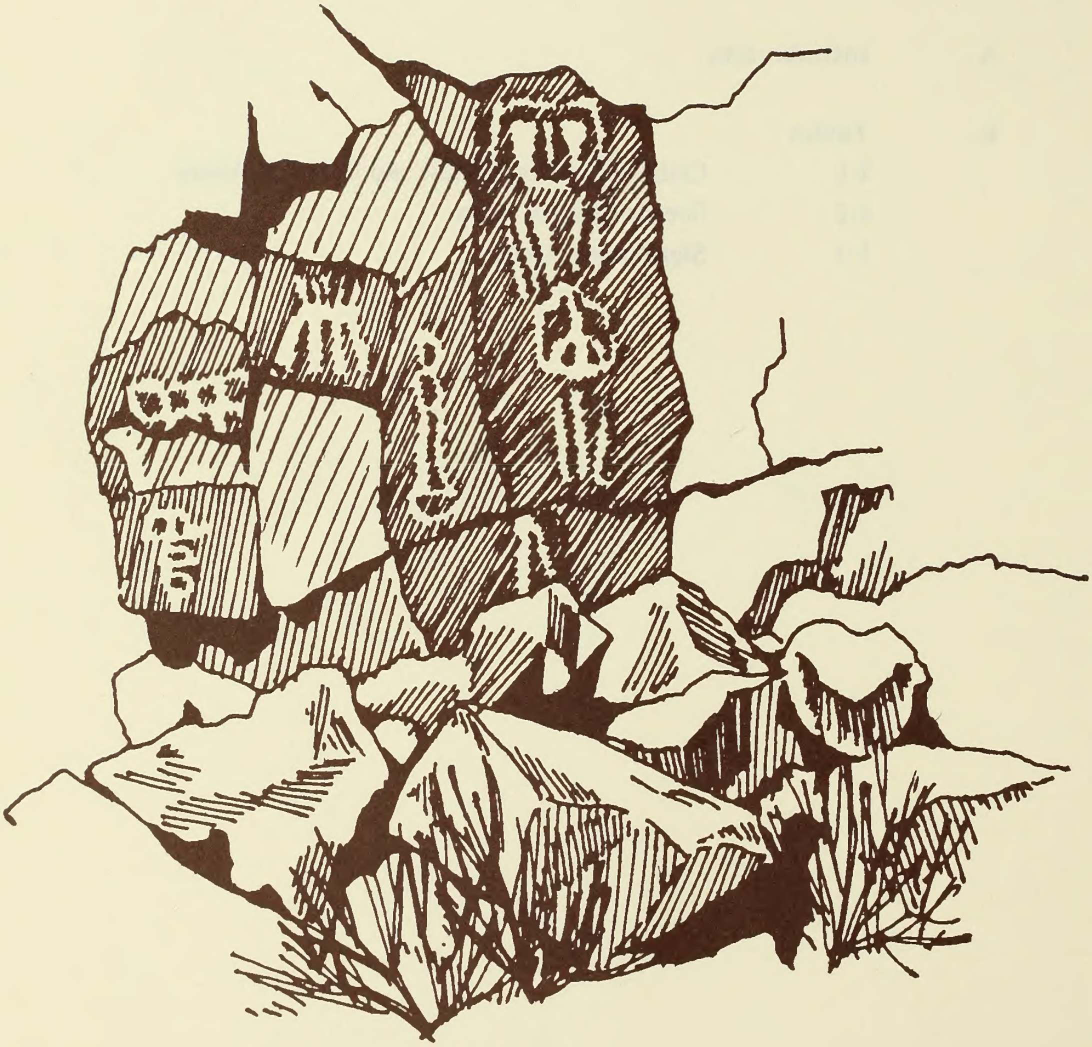
APPENDIX I

EAST MOJAVE PLANNING AREA ANALYSIS

Critical Environmental and Cultural Areas

A. Introduction

B. Tables
- I-1 Critical Environmental and Cultural Areas
- I-2 Scenic Quality Area
- I-3 Significant Areas



CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

INTRODUCTION

Evaluating the Unit Resource Analysis information gathered, the research done by other organizations and agencies, and the designations and withdrawals within the planning units, areas can be defined as having similar features. Based on these identified cultural, geophysical, scenic, and biotic features, 31 separate areas were defined as making up the East Mojave Planning Area.

An evaluation of each area was accomplished to determine those portions of the East Mojave that would be considered critical. Eight environmental, scenic, and cultural features were looked at. These were archaeology, geology, history, paleontology, soils, vegetation, wildlife, and scenic quality.

Each feature identified in an area was rated as to whether it was significant when compared to the desert-wide region. A feature that was "one of a kind" or a "prime example" was considered significant.

Table I - 1 lists each area and names the groups or agencies who have identified it's features. Each feature is also listed with a brief descriptive statement. Significant desert-wide features are noted.

Areas of excellent or good scenic quality are listed on Table I - 2 along with a brief description. Those areas that are scenically important when compared to the California Desert are identified as "SIGNIFICANT".

Within the East Mojave Planning Units there are 15 areas that have been evaluated as being significant areas of the California Desert. These areas were determined by the quality and/or quantity of environmental and cultural resources found within them. Table I - 3 shows the evaluation of each of the 31 areas defined in the Planning Area Analysis (PAA).

DEFINITIONS

Table I - 1

Environmental Areas:	Those areas that have been identified by other governmental agencies, environmental organizations, previous BLM withdrawals, or designation, or from URA.
Cultural Areas:	Those areas that have been nominated or placed on the National Register, or those areas completely on public lands that have potential for nomination to the National Register.
Source:	
BLM	Bureau of Land Management
CNACC	California Natural Areas Coordinating Council
DF&G	California Department of Fish and Game
SP&R	California State Parks and Recreation
CR - URA	Cultural Resources - Unit Resource Analysis
R - URA	Recreation - Unit Resource Analysis
Soils - URA	Soils - Unit Resource Analysis
Veg - URA	Vegetation - Unit Resource Analysis
WL - URA	Wildlife - Unit Resource Analysis
Perceived Qualities:	Those features which were given as a rationale for defining the area.
Significant:	Those perceived qualities that, from the information available, would be rated as "one of a kind" or a "prime example" based on the desert-wide region.

TABLE I - 1

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Bristol Mountains:		
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature (Broadwell Mesa Tank): The great tank is one of the three largest (if not the largest) natural tanks in the desert and holds many thousands of gallons of water when full.
Desert Pavement with dark varnish IV-W-1	Soils-URA	Soils Feature (SIGNIFICANT): Soil has a very developed horizon with a thick surface vesicular crust. Soil is very stable.
Castle Peaks Area:		
Castle Peak Area IV-WL-3	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Joshua Tree Woodland III-R-1	BLM Candidate Natural Area	Scientific Research Natural Area: Excellent example of joshua tree woodland. Area is of biological significance and has wildlife features and recreational potential. Highly unique area.
Indian Springs III-R 12	BLM Designation - Part of East Mojave National Recreation Lands	Outstanding Natural Area (BOR Class IV): Area of outstanding scenic splendor, natural wonder, or scientific importance that merits special attention and care in management to insure the preservation in natural condition.
Indian Springs III-R-1	BLM Candidate Natural Area	Research Natural Area: Identified by UCR
Castle Peaks III-R-18	R-URA	Geologic Feature (SIGNIFICANT): A series of scenic spires, the highest reaching more than 600 feet above the surrounding terrain. Although these peaks are not particularly interesting to the geologists, they are uncommon in the California Desert and have significant sightseeing and aesthetic value.

TABLE I - 1 (cont.)
CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Cima Dome:		
Cima Dome Natural Area and Recreation Site III-R-1 / III-VP-1&4	BLM - Withdrawal Veg-URA	Geologic Feature (SIGNIFICANT): A granite dome some eight miles in diameter. No other similar feature found in the desert. Vegetative Feature (SIGNIFICANT): A dense joshua tree forest of uncommon Yucca *brevifolia* var. *jaequriana*.
Cima Dome III-R-17	SP&R	Prime Natural Area: Potential state or natural park.
Cima Dome III-R-18	R-URA	Geologic Feature (SIGNIFICANT): The dome is a feature of outstanding geologic significance, both in the popular sightseeing as well as scientific sense.
Cima Dome Outstanding Natural Area III-R-12	BLM - Designation; part of East Mojave National Recreation Lands	Outstanding Area (BOR Class IV): Area of scenic splendor, natural wonder, or scientific importance that merits special attention and care in management to insure preservation in a natural condition.
Cima Dome III-R-1	CNACC	Same as BLM withdrawal.
Cima Dome III-WL-13	WL-URA	Wildlife Feature (SIGNIFICANT): Breeding area for Bendire's Thrasher and Gilded Flicker. Only identified area in the California Desert used for breeding by these two species.
Cinder Cones Area:		
Cinder Cones area III-R-1&18	CNACC	Geologic Feature (SIGNIFICANT): Extensive volcanic field with at least 26 cones and associated lava fields.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Cinder Cones Area (cont.) Cinder Cones Area III-R-17	SP&R	Prime Natural Area: Potential state or national park.
Cinder Cones Natural Area III-R-1	BLM Candidate Natural Area	Geologic Feature (SIGNIFICANT): Twenty-eight cones and associated lava flows and ash beds.
Cinder Cone Petroglyph Site III- CR-1	BLM - Withdrawal	Archaeological Feature (Aiken's Wash)(SIGNIFICANT): A concentration of petroglyphs, pictographs, a house ring village, occupied rockshelters, and one or more trails are in a relatively small area.
Nominated Candidate for National Register II-CR-1	CR-URA	Archaeological Feature (Aiken's Wash)(SIGNIFICANT): Same as Cinder Cone Petroglyph Site. Cow Cove Petroglyphs (SIGNIFICANT): This locality consists of a more than four mile long string of petroglyph sites situated on basaltic cliffs, outcroppings, and boulders. This area is one of the few major concentrations of petroglyphs in the Mojave Desert that is still relatively unvandalized and still in a relatively undisturbed setting.
Potential Candidates for National Register IV-CR-1	CR-URA	Indian Creek: Contains three recorded rockshelters, several grinding slicks and three petroglyph areas. Catclaw and Willow Fingers Petroglyph Sites: Along the wash there are two small petroglyph sites located at natural tanks. These sites relate to other petroglyph localities and conform to a string of sites along the Old Mojave Road. Kel-Baker Road Petroglyph Site: Willow Wash runs east and west and forms a natural access route around southern end of Cinder Cones. There are about 50 elements located at a natural tank found at this location. Seventeen-Mile Point Archaeological Site: The area contains 16 rock cairns ranging in size from one metre to three metres in diameter. Rocks composing the cairns and alignments are highly patinized, indicating they are prehistoric. This is an unusual site type in the East Mojave Planning Units, particularly since it is in association with a tract segment.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Cinder Cones Area (cont.) Desert Pavement with dark varnish IV-W-1	Soils-URA	Soils Feature (SIGNIFICANT): Soils have a very developed horizon with a thick surface vesicular crust. Soil is very stable.
Lava Beds Outstanding Natural Area III-R-12	BLM - Designation; part of East Mojave National Recreation Lands	Outstanding Natural Area (BOR Class IV): Area of outstanding scenic splendor, natural wonder, or scientific importance that merits special attention and care in management to insure preservation in a natural condition.
Clipper Valley: Clipper Valley	WL-URA	Wildlife Feature: Good populations of desert tortoise found in colonies throughout the area.
Dead Mountains: Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature (SIGNIFICANT): Picture Canyon Archaeological District. One of the major petroglyph sites in the East Mojave. From 300 to 500 petroglyph elements located along this natural access route between the Colorado River Valley and Piute Valley. Red Springs Archaeological Site: Area is an active spring on a large spring mound which served as an aboriginal campsite. This is the only spring site on the east side of the Dead Mountains and appears to be part of the aboriginal trail system used by Mojave Indians.
Devil's Playground: Devil's Playground III-WL-7 8&14	WL-URA	Wildlife Feature (SIGNIFICANT): Various insects located in area are found only in a few isolated sand dune systems in the western United States, and some may be unique to Devil's Playground/Kelso Dune System. These insects are the camel cricket, sand treaders, weavels, and Jerusalem crickets. Reptiles, one of the best reptile areas in California Desert because of number and variety of species.

TABLE 1 - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Devil's Playground: (cont.)		
Devil's Playground III-R-1	CNACC	Geologic and Sightseeing Area: Part of Kelso Dune System. One of the outstanding sightseeing areas in the East Mojave.
East Mojave Recreation Land		
East Mojave National Recreation Lands III-R-1&12	BLM - Designation	Desert National Recreation Lands: One of 19 areas in the California Desert recognized as having superior scenic, botanic, zoologic, geologic, and cultural values with recreation being a major use.
Potential State or National East Mojave Park III-R-17	SP&R	Prime Natural Area: Recognized and identified as having potential for a large state or possibly national park.
Wildlife and Recreation Area IV-WL-3	DF&G	Wildlife and Recreation Area: Part of plan for protection and preservation of wildlife and natural resources identified in this area.
Fort Piute Area:		
Fort Piute and Fort Piute Range III-R-1	CNACC	Riparian Habitat: No information available, with exception of map delineating the area. Reference Number 361650.
Piute-Hill-Gorge Archaeological Wilderness Area	CR-URA	Archaeological and Historic Districts: Piute Gorge (SIGNIFICANT): Extensive area of archaeological sites surrounding the lip of Piute Gorge and on the lower benches. Piute Spring Petroglyphs (SIGNIFICANT): Contains hundreds of petroglyphs on boulders along a more than two mile stretch of the Old Mojave Trail (Road). Historical - Fort Piute (SIGNIFICANT): On the National Register. Actually the fort was an outpost consisting of a three-room, rock corral and connecting protective wall. This outpost stands as a marker to one of the most unique spots in the entire California Desert.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Fort Piute Area (cont.): Desert Pavement with dark varnish IV-W-1	Soils-URA	Soils Feature (SIGNIFICANT): Soil has a very developed horizon with a thick surface vesicular crust. Soil is very stable.
Fort Piute IV-WL-3	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Fort Piute III-WL-7,9,12&15	WL-URA	Wildlife Feature (SIGNIFICANT): Important area for bighorn sheep and endangered Mojave chub. One of the best areas for breeding and wintering of birds in the California Desert. Potential gila monster habitat.
Piute Canyon III-VP-1&4	Veg-URA	Vegetation Feature (SIGNIFICANT): One of the best developed examples of riparian vegetation types in the desert.
Piute Gorge III-R-18	R-URA	Geologic Feature (SIGNIFICANT): This highly eroded and colorful formation was cut by the headwaters of Piute Creek as they eroded away earlier sediments. This area is of exceedingly high geologic, sightseeing, and interpretive significance.
Fort Piute National Recreation Lands III-R-12	BLM - Designation	Natural Environmental Area (BOR Class III): Area has interesting flora and land forms in natural settings.
Granite Mountains: Granite Mountains III-R-1 III-VP-1 3&4	CNACC Veg-URA	Pinyon-Juniper Woodland: Scattered in upper reaches is *Pinus monophylla* and *Juniperus.* Yucca Cholla Association: One of the best examples in Eastern Mojave. Creosote Scrub: Dense in lower elevations. Desert Wash (SIGNIFICANT): Catclaw, *Acacia greggii*, is common. The rare *Penstemon stephensii* is found only in this and a few adjacent areas.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Granite Mountains: (cont.)		
Granite Mountains III-WL-11,14&15	WL-URA	Wildlife Feature (SIGNIFICANT): Contains isolated populations of coastal wildlife species bighorn sheep habitat.
Granite Pass Recreation Sites III-R-1	BLM - Withdrawal	Recreation Sites: On north side of the Granite Mountains with excellent view of Kelso Dunes. Pinyon stands are located at two of the areas.
Granite Pass III-R-12	BLM - Designation; Part of East Mojave National Recreation Lands	General Outdoor Recreation Area (BOR Class II): Area subject to substantial development for a wide variety of specific recreation uses. Potential campground sites.
Granite Mountains III-R-1	BLM Candidate Natural Area	Desert Environment Area: Includes most of major habitat types found in the East Mojave within a relatively small area.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Sites - Carr Canyon (SIGNIFICANT): Over 100 petroglphs and a few pictograph elements. Historic documentation and isolated location are significant. Archaeological Districts - Willow Spring Wash: One of the few village sites in the East Mojave Planning Area, and is in near pristine condition. Cottonwood Wash (SIGNIFICANT): An extensive open site and is one of the remaining village sites in pristine condition.
Granite Mountain Pediment III-R-18	R-URA	Geologic Feature: An excellent and readily viewed pediment. Students regularly are brought to the Granites to to view this pediment.
Granite Mountains IV-WL-3	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Homer Mountain: Homer Mountain III-VP-1&4	Veg-URA	Vegetative Feature (SIGNIFICANT): Extension of the opuntia, teddy bear cholla, smoke tree, and perhaps other Sonoran Desert elements
Ivanpah Mountains and Mescal Range: Ivanpah Mountains III-R-1	CNACC	Natural Area: No information available, with the exception of map, delineating area. Reference No. 360995.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological District (SIGNIFICANT): Mescal Range Roasting Pits which have over 100 agave roasting pits found in this area, and are relatively undisturbed. These roasting pits are unique cultural features in the East Mojave Planning Units, as well as the California Desert.
Desert Pavement with dark varnish	Soils-URA	Soils Feature (SIGNIFICANT): Soils have a very developed horizon with a thick surface vesicular crust. Soil is very stable.
Mescal Range III-R-18	R-URA	Geological Feature (SIGNIFICANT): Sedimentary layers of rock have been overturned 180 degrees. One of the few areas where such a phenomenon can be readily found and observed.
Ivanpah Playa: Potential Candidate for National Register IV-CR-1	CR-URA	Ivanpah Playa Archaeological District (SIGNIFICANT): This extensive archaeological locality contains a high density of sites indicative of task-specific activities associated with playa and the saltbush (Atriplex) community.
Ivanpah Valley: Ivanpah Valley III-WL-9	WL-URA	Wildlife Feature: Good populations of Desert Tortoise found in colonies throughout the area.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Kelso and Cima Valleys:		
Kelso and Cima Valleys	WL-URA	Wildlife Feature: Northern portion is part of breeding area for Bendire's Thrasher and Gilded Flicker found primarily in Cima Dome. Southern portion of area is an extension of Kelso Dunes and associated wildlife.
Kelso Dunes III-R-1	CNACC	Geological Feature (SIGNIFICANT): These dunes are among the tallest in the State. Largest stationary dunes system in the United States. One of the outstanding sightseeing areas in the East Mojave.
		Wildlife Feature (SIGNIFICANT): Number of rare and highly restricted insects in the dune system, including the katydid (Cromopedes kelsoensis).
Kelso Dunes III-R-1	BLM - Withdrawal	Same as above
Kelso Dunes III-R-12	BLM - Designation; Part of East Mojave National Recreation Lands	Outstanding Natural Area (BOR Class IV): Area of outstanding splendor, natural wonder, or scientific importance that merits special attention and care in management to insure preservation in a natural condition.
Kelso Dunes III-WL-7,8&14	WL-URA	Wildlife Feature (SIGNIFICANT): Various insects located in the dunes are found only in a few isolated sand dune systems in the Western United States, and some may be unique to Kelso Dunes/Devil's Playground system. These insects are the camel cricket, sand treaders, weavils, and Jerusalem cricket. One of the best reptile areas in the California Desert because of number and variety of species.
Kelso Dunes III-VP-1&4	Veg-URA	Vegetation Feature: Prime example of plant life which has capabilities of enduring harsh conditions of sand-blown environment.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Kelso Dunes: (cont.) Kelso Dunes III-R-17	SP&R	Prime Natural Area: Potential state or national park.
Lanfair, Pinto and Round Valleys: Lanfair and Round Valleys III-R-1	CNACC	Vegetative Feature (SIGNIFICANT): There are some dense concentrations of joshua tree (*Yucca brevifolia*) and mingled with these at lower elevations are unusually large individuals of *Yucca schidegera*. The understory vegetation initially was comprised of species representative of the semi-desert grassland of the Southwest. Many of these grasses are still present today.
Lanfair Valley	WL-URA	Wildlife Feature: Historically has been prime habitat for many significant wildlife species but present habitat has been degraded by livestock grazing and is in poor condition.
Portions of Lanfair and Round Valley IV-WL-2	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Grotto Hills III-R-1	BLM Candidate for Natural Area	Research Natural Area: Isolated mountain peak area has scenic qualities, speleological potential wildlife features, archaeological and recreational potential.
Potential Candidate for National Register IV-CR-1	CR-URA	Historical Feature (SIGNIFICANT): Wooden oil derrick which is complete and still preserved. May be among the best preserved wooden oil derricks in Southern California.
Mid Hills: Mid Hills III-R-1 and III-VP-1,3&4	CNACC	Vegetative Feature (SIGNIFICANT): Pinyon-juniper woodland;a good example of Great Basin vegetation which, along with Round Valley, occur as enclaves in the Mojave Desert

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Mid Hills: (cont.)		
Mid Hills IV-WL-1	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Mid Hills Recreation Site III-R-1	BLM - Withdrawal	Recreation Site Major recreation site within the East Mojave. Site includes pinyon-juniper woodland and other natural features which provide outstanding camping and picnicking.
Mid Hills III-R-12	BLM - Designation; Part of East Mojave National Recreation Lands	Developed Campgrounds (BOR Class II): Area subject to substantial development for a wide variety of specific recreation use.
	East Mojave National Recreation lands	Campground Site:
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature - Eagle Craggs Archaeological District: This pinyon-juniper vegetation area contains rockshelters, open air habitation sites, and many varieties of special use sites. Good example of undisturbed special use sites. Wild Cat Spring: This area has a high density of habitation sites and special use sites that emphasize vegetation procurement, processing, and lithic manufacture. Site type ratios and artifact assemblages suggest unique situation in this spring-ecotone area.
Mid Hills III-WL-13&15	WL-URA	Wildlife Feature (SIGNIFICANT): One of the finest pinyon-juniper habitats which allows for high concentrations of resident pinyon and juniper bird species. One of the better deer habitats in the East Mojave.
New York Mountains: New York Mountains	CNACC	Vegetative Feature (SIGNIFICANT):

TABLE 1 - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
New York Mountains:(cont) III-R-1 and III-VP-1&4	Veg-URA	Pinyon-juniper woodland and relict stands. Natural beauty combined with an unusual flora and fauna make this area one of the more outstanding in the East Mojave. Found in this area is Juniperas osteosperma, pinyons and also a relict stand of white fir, Abies concolor.
New York Mountains Pinyon-Juniper Woodland III-R-1	BLM Candidate for Natural Area	Natural Area: Pinyon-juniper woodland. Area extremely scenic, containing a pinyon-juniper and oak forest.
New York Mountains III-R-12	BLM - Designation; Part of East Mojave National Recreation Lands	Outstanding Natural Area (BOR Class IV): Area of outstanding scenic splendor, natural wonder, or scientific importance that merits special attention and care in management to insure preservation in a natural condition.
Caruthers Canyon III-R-1	BLM Candidate for Natural Area	Biotic and Geologic Feature: A unique transition from granite to limestone with attendant changes in both flora and vegetation.
Caruthers Canyon III-R-12	BLM - Designation; Part of East Mojave National Recreation Lands	Biotic and Geologic Feature (BOR Class II): Area subject to substantial development for a wide variety of specific recreation use.
Caruthers Canyon III-V-1	Veg-URA	Vegetative Feature (SIGNIFICANT): Relict stands of pinyon and juniper. Area has enclaves of the surrounding providences of vegetation.
	DF&G	Wildlife and Recreation Area: Area is part of a plan for protection and preservation of wildlife and natural resources identified in this area.
	WL-URA	Wildlife Feature (SIGNIFICANT): Nesting and breeding area for oak woodland birds. One of the better deer habitats in the area.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
New York Mountains:(cont) Fourth of July Canyon III-R-1	CNACC	Vegetative Feature (SIGNIFICANT): Pinyon-scrub oak woodland. This canyon contains south and east slopes covered with pinyon woodland, Pinus monophylla and scrub oak, Quercus chrysoliis. Two rare plants in the area are Eriogonum ericifolium var. Thornei and Astragalus cimae var. cimae.
Fourth of July Canyon	Veg-URA	Vegetative Feature (SIGNIFICANT): Relict stands of pinyon and juniper. Area has enclaves of the surrounding providences of vegetation.
Old Dad Mountain: Old Dad Mountain Petroglyph Site III-R-1	BLM - Withdrawal	Archaeological Feature - Old Dad Tank Site: A deeply defined trail follows the wash up to the tank. This trail comes in from the main east-west canyon passage. There are 50-100 petroglyph elements associated with the tank.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature: Old Dad Tank Site, same as above.
Old Dad Playground Faults III-R-18	R-URA	Geological Feature: Faults which are readily viewed along the east face of Old Dad Mountain and along the transmission line traversing the cleft at the south end of Old Dad Mountain.
Piute and Fenner Valley: Piute Wash and Fenner Wash III-V-12&13	WL-URA	Wildlife Feature: High concentration of acacia provide outstanding habitat for several significant species of birds. Diversities of birds are as much as ten times higher than the surrounding desert. Some species of birds only occur in these washes.
Piute Wash and Fenner Wash III-V-1&4	Veg-URA	Vegetative Feature: Smoke tree area and is the northern boundary of the Sonoran Desert vegetation.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Piute and Fenner Valley (cont.)		
Piute Valley III-R-18	R-URA	Paleontological Feature (SIGNIFICANT): The only Blancan mammal fossil area in San Bernardino County. Remains of the giant horse Phesippus can be found here, as well as those of smaller horses, camels, and elephants.
Piute Range and Castle Mountains:		
Desert Pavement with dark varnish IV-WL-2	Soils-URA	Soils Feature (SIGNIFICANT): Soil has a very developed horizon with a thick surface vesicular crust. Soil is very stable.
Piute Range IV-WL-2	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Piute Range III-WL-7	WL-URA	Wildlife Feature (SIGNIFICANT): Important area for bighorn sheep.
Piute Range and Castle Mountains IV-WL-3	DF&G	Wildlife Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Piute Range Petroglyph III-R-1	BLM - Withdrawal	Archaeological Feature: Draw petrogplyphs. A network of petroglyph sites are along the natural access route between Piute and Lanfair Valleys.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature: Same as above.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Piute and Fenner Valleys (cont.)		
Castle Mountain Petroglyph Site	BLM - Withdrawal	Archaeological Feature - Castle Mountain Spring: Site consists of a basaltic outcropping near a spring containing over 100 petroglyph elements. Two excellent examples of men and bighorn sheep. A well preserved example of prehistoric rock art.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature - Castle Mountains Springs Archaeological District: Same as above.
Providence Mountains:		
Providence Mountains III-R-1 and III-V-1&4	CNACC Veg-URA	Vegetative Feature: Pinyon-juniper at high elevations. Three rare plants, Penstemon calcareas, P. Stephensii, and Eriogonum heermanmi var. Floccosum occur in these mountains.
		Geologic Feature (SIGNIFICANT): These are the highest and most spectacular mountains in the East Mojave.
Providence Mountains III-R-17	SP&R	Prime Natural Area: Potential area for state or national park.
Providence Mountains and surrounding area	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Providence Mountains III-WL-8&15	WL-URA	Wildlife Feature: High concentrations of bighorn sheep. Regal ring-neck snakes are found only in these mountains in California.
Providence Mountains III-R-12	BLM - Designation; Part of East Mojave	Primitive Area (BOR Class V): Extensive, natural, wild, and undeveloped areas and settings essentially removed from the effects

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Providence Mountains: (cont)	National Recreation Lands	of civilization.
Potential Candidate for National Register IV-CR-1	CR-URA	Historic Feature (SIGNIFICANT): Providence Historic District. Site of the 1880's mining town for the Bonanza King Mine and other mines along the eastern side of the Providence Mountains. Providence was a durable camp built to last with a majority of it's structures erected from locally quarried stone. The remains are unlike any found in California.
Good Springs Formation III-R-18	R-URA	Paleontological Feature: A limestone formation with high paleontological value. Brachipeda and trilobites fossils can be found here.
Round Valley Area: Round Valley III-WL-15	WL-URA	Wildlife Feature: Prime habitat for deer. Southern limit of Great Basin sagebrush habitat.
Potential Candidate for National Register IV-CR-1	CR-URA	Historic Feature (SIGNIFICANT): Camp Rock Springs Historical District. An official U.S. Army Post that was one of the most rugged and comfortless posts that ever existed in the history of the West.
		South Round Valley Mine Works: Consists of a complete "one-man" ore processing setup. This small stamp-mill is the only such site known to exist in the East Mojave Desert, that still contains it's original cast iron processing setup.
Round Valley III-V-1&4	Veg-URA	Vegetative Feature (SIGNIFICANT): Excellent example of Great Basin sagebrush and Utah juniper.
Table Mountain III-R-18	R-URA	Geological Feature: This mesa has fair value as a geological features. It attracts attention to itself as an unusual landscape feature, and thus affords potential opportunity for the interpretation of volcanism and

TABLE I - 1 (cont.)
CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Round Valley Area (cont.)		mesa formation in the East Mojave.
Sacramento Mountains: Bigelow Cholla Natural Area III-R-1	CNACC	Vegetative Feature (SIGNIFICANT): Outstanding stand of teddy bear cholla, Opuntia bigelovii. Amidst a typical creosote bush scrub community, large and most conspicuous stands of the Opuntia occur. Unique to the planning area, and one of the best stands in the desert.
Bigelow Cholla III-R-1	BLM-Withdrawal	Vegetative Feature: Same as above
Shadow Valley: Shadow Valley III-WL-13	WL-URA	Wildlife Feature: Southern portion is a breeding area for Bendire's Thrasher and Gilded Flicker, found primarily in Cima Dome.
Shadow Valley III-VP-1&4	Veg--URA	Vegetative Feature (SIGNIFICANT): Budsage, which is important in the Great Basin vegetation, is well represented here in the southern extension of the East Mojave Planning Units.
Wildhorse Mesa: Wildhorse Mesa Archaeological Wilderness Area IV-CR-2	CR-URA	Archaeological Feature (SIGNIFICANT): Wildhorse Mesa Archaeological District. Area contains many areas of archaeological potential and is relatively undisturbed.
Wildhorse Canyon Petroglyph Site III-R-1	BLM-Withdrawal	Archaeological Feature (SIGNIFICANT): Area contains a major village or rancheria site and numerous other associated sites, including temporary camps, rockshelters, and lithic scatters.
Potential Candidate	CR-URA	Archaeological Feature - Wildhorse Canyon (SIGNIFICANT):

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Wildhorse Mesa: (cont.) for National Register	CR-URA	Same as above. (previous page) Wildhorse Mesa (SIGNIFICANT): This area is unique because of the density and abundance of archaeological remains and the association of sites with ancient agave, pinyon, and juniper stands.
		Opal Buttes: Aboriginal quarry that appears to have the most extensive vein of crypto-crystalline in the planning area.
		Colton Hills Wind Caves: Array of caves is a unique feature for these planning units. Seasonal transient activities associated with Cave Spring seem to be indicated.
		Wildhorse Mesa Lime Cabin: Collapsed range cabin with stone chimney, wooden storage shelter, and associated rock formation is the only visible historic intrusion on the mesa.
Wildhorse Mesa IV-WL-3	DF&G	Wildlife and Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Wildhorse Mesa III-R-1	CNACC	Vegetative Feature: Dense stands of black-brush with scattered individuals of pinyon-junipers, especially at the higher elevations.
		Geological Feature (SIGNIFICANT): One of the largest volcanic mesa surfaces in southern California.
Wildhorse Canyon III-R-17	SP&R	Prime Natural Area: Potential state or national park.
Hole-in-the-Wall III-R-12	BLM-Designation; Part of East Mojave	General Outdoor Recreation Area (BOR Class II): Area subject to substantial development for a wide variety of recreational use.

TABLE I - 1 (cont.)

CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Wildhorse Mesa: (cont.)	National Recreation Lands	
Wildhorse Mesa III-WL-10,14&15	WL-URA	Wildlife Feature: Raptor breeding area, habitat for deer and significant mammals.
Woods and Hackberry Mountains;Vontrigger Hills:		
Woods and Hackberry Mts Vontrigger Hills III-R-1	CNACC Veg-URA	Vegetative Feature: One of the most diverse areas for succulents in the desert. Higher elevations are covered with pinyon. This is southern boundary for joshua tree variety, Jaegariana.
Hackberry Wash Area III-R-18	R-URA	Paleontological Feature: Fossil Rhinoceroses can be found in the tertiary non-marine and volcanic locustrine sediments.
Grass Canyon III-R-12	BLM-Designation; Part of East Mojave National Recreation Lands	Archaeological Feature (BOR Class VI): Historic or cultural sites of major historical or cultural significance, either national, regional, or local.
Grass Canyon Petroglyph Site III-R-1	BLM-Withdrawal	Archaeological Feature: See Grass Canyon Archaeological District below.
Potential Candidate for National Register IV-CR-1	CR-URA	Archaeological Feature - Grass Canyon Archaeological District: Hundreds of elements of petroglyphs located on the tufa cliffs above the wash, with the largest concentration being at the mouth of Grass Canyon. Location of this site and the variety and location of this site's elements, make it significant for study and interpretation.
Woods Mountains III-WL-10&15	WL-URA	Wildlife Feature: Habitat for bighorn sheep and raptor breeding area.

TABLE I - 1 (cont.)
CRITICAL ENVIRONMENTAL AND CULTURAL AREAS

NAME and OVERLAY	SOURCE	PERCEIVED QUALITIES and their Significance to the Planning Units and to the California Desert
Woods, Hackberry Mts, Vontrigger Hills: (cont.)		
Woods and Hackberry Mts, Vontrigger Hills IV-WL-3	DF&G	Wildlife Recreation Area: Part of a plan for protection and preservation of wildlife and natural resources identified in this area.
Woods Wash Petroglyph Site III-R-1	BLM-Withdrawal	Archaeological Feature (SIGNIFICANT): This locality includes a cluster of at least 11 petroglyph sites associated with the basaltic outcropping along the wash. More than 750 petroglyph elements are present.
Woods Wash III-R-1	BLM-Designation; Part of East Mojave National Recreation Lands	Archaeological Feature (BOR Class VI): Historic or cultural sites of major historical or cultural significance, either national, regional, or local.

TABLE I - 2
SCENIC QUALITY AREAS

NAME	SCENIC QUALITY and it's SIGNIFICANCE TO PLANNING UNITS and the CALIFORNIA DESERT
Castle Peaks	SIGNIFICANT: A series of reddish andesitic spires, the highest reaching more than 600 feet above the surrounding terrain, dominate this rating area. Joshua trees, pinyon, and juniper add interesting textures to the landscape. Castle Peaks are prominent regional landmarks and are among the very distinctive spire formations in the California Desert.
Cima Dome	SIGNIFICANT: Cima is a unique geologic feature which also has high biological values. The dome is not a convex surface, but is a series of relatively even, straight-sided planes that radiate from a central point, through 360 degrees. The relatively even surface is broken by a number of metamorphic rock outcroppings; the most prominent on the east side referred to as Teutonia Peak, otherwise there is no other dramatic relief associated with the surface. The north and east sides are covered by an impressive stand of joshua trees which add variety and interest to this unit.
Cinder Cones	SIGNIFICANT: Thirty-two cinder cones and associated lava fields comprise this unique scenic area, the largest concentration in the California Desert. The rating area has no water and only limited vegetation. A major visual intrusion consists of cinder mining operations which are severely altering color, form, line, and texture of a number of cones.
Dead Mountains	The Dead Mountains present a bleak and barren aspect when viewed from any distance. Once within, however, they disclose a variety of interesting rock patterns and colors. An outstanding stand of Bigelow Cholla occurs on the west slopes of the Dead Mountains, and the southwest edge of the moutains is bordered by an outstanding smoke tree wash.
Devil's Playground	SIGNIFICANT: Geologically an extension of the Mojave River Sink, the area is characterized by low hills on which blown sand has come to rest, making a white on dark starkness found nowhere else in the planning units. Although water and vegetation are absent, the color and uniqueness of the area make for an excellent rating.
Fort Piute	SIGNIFICANT: This area received the highest scenic quality score in the East Mojave Planning Units. Steep red canyon walls descend to the only flowing water in the area. A badlands formation, sometimes referred to by locals as the "Grand Canyon of the California Desert", dominates the head of Piute Canyon. Extensive flora and fauna exist here as a result. Intrusions are few. Fort Piute is unique in the area.

TABLE I - 2 (cont.)

SCENIC QUALITY AREAS

NAME	SCENIC QUALITY and it's SIGNIFICANCE TO PLANNING UNITS and the CALIFORNIA DESERT
Granite Mountains	SIGNIFICANT: Appealing rock outcrops of jointed, granitic rock characterizes this very scenic area. Pinyons and junipers clothe the upper slopes, while a few cottonwoods occur in some of the lower canyons. Few intrusions deface the natural scene here, except for springs developed for cattle ranching. A power transmission line and Interstate Highway 40 are visible from part of the rating area. Views from the top of the Granite Mountains are excellent, one commands vistas of much of the East Mojave Planning Area.
Hidden Hills and Van Winkle Mountains	SIGNIFICANT: A small rating area, the north-facing vertical face has quite contrasting colors. Very little vegetation is found here. One spring has been developed for use by wildlife. A major intrusion is Interstate Highway 40, which is the southern boundary of this rating area.
Ivanpah Mountains and Mescal Range	SIGNIFICANT: Interesting color combinations exist here, the result of sedimentation and metamorphasis. Exposed layering on vertical cliffs adds very interesting line and textured patterns to the landscape. Although there is some mining in the area, it is not obvious to the passerby, and therefore is only a minor intrusion. Water is virtually absent. Vegetation includes joshua trees and Agaves.
Kelso and Cima Valleys	A long, linear valley bottom immediately adjacent to eight "excellent" rating areas. While the rating area itself is lacking in many of the key factors, the surrounding areas of excellent scenic quality are intrinsic to it, and increase it's rating to a "good".
Kelso and Marl Mountains	Rounded, medium height hills provide a dark backdrop to the whitish starkness of Devil's Playground. The area includes both the Kelso Mountains and Old Dad Mountain. Vegetation is sparse, with desert willow found along the washes. A power transmission line corridor passes through the rating area.
Kelso Dunes	SIGNIFICANT: Geologically an extension of the Mojave River Sink, the area is characterized by low hills on which blown sand has come to rest, making a white-on-dark- starkness found nowhere else in the planning units. Although water and vegetation are absent, the color and uniqueness of the area make for an excellent rating.

TABLE I - 2 (cont.)
SCENIC QUALITY AREAS

NAME	SCENIC QUALITY and it's SIGNIFICANCE TO PLANNING UNITS and the CALIFORNIA DESERT
Lanfair Valley	This rating unit comprises a gently sloping terrain that trends eastward from the New York Mountains and Mid Hills, towards Lanfair Valley. Although the area is heavily grazed by cattle , it does not appear as impacted as other areas because of the abundant joshua trees found here. All water sources have been developed for use by cattle.
Mid Hills	SIGNIFICANT: Broad, sagebrush covered valleys surrounded by hills with juniper and pinyon, impart a Utah-like landscape to this portion of the California Desert. Flat-topped Table Mountain is a prominent landmark. This and nearby Wildhorse Mesa composed the setting for Zane Grey's novel, "Wildhorse Mesa". This is western movie "cowboy country".
New York Mountains	SIGNIFICANT: The New York Mountains form the northeastern flank of the mountainous central portion of the planning units, with the Mid Hills and Providence Mountains trending away from them to the southwest. These are the highest mountains in the planning area, and in them are found relict stands of two needle-pinyon and Rocky Mountain white fir trees. Visual interest is heightened by the rugged pattern of buff-colored, jointed granitic rocks and boulders, making up the range that is dotted with dispersed stands of pinyon-juniper. The northwest side of the New York Mountains is very steep where the mountains rise abruptly from the Ivanpah Valley. The south west side presents a more gently sloping terrain characterized by broad valleys, (Pinto Valley) and relatively long, broad canyons, (Caruthers Canyon).
Piute Mounatins	Low hills with some mining activity. There are thick stands of yucca in the area. No visible water is present. Interstate Highway 40 is the southern boundary of the rating unit.
Piute Range and Castle Range	Piute Range marks the edge of Lanfair Valley. The eastern side of the range is ragged and vertical. The western side is less steep because of the Lanfair Valley sediments which have been deposited along the range's flanks. Water is virtually absent in the range, except at Fort Piute. Vegetation is sparse, but excellent cacti concentrations are present. Few disturbances of man impact this area's scenery.
Providence Mountains	SIGNIFICANT: The steep Providence Mountains emerge strikingly from the south-central portion of the planning units as prominent regional landmarks. Their verticality is unequalled in the area. Deep canyons, cactus gardens, and ridges covered with pinyons accent the impressive rock formations and topography in this sector.

TABLE I - 2 (cont.)
SCENIC QUALITY AREAS

NAME	SCENIC QUALITY and it's SIGNIFICANCE TO PLANNING UNITS and the CALIFORNIA DESERT
Round Valley	SIGNIFICANT: Broad, sagebrush covered valleys surrounded by hills with pinyon and juniper, impart a Utah-like landscape to this portion of the California Desert.
Sacramento Mountains	Very similar to the Piute Mountains. There are fine examples of Sonoran Desert vegetation in this area.
Shadow Valley	Nestled among the cinder cones, Cima Dome, and the Mescal Range, this broad, flat area is dominated by joshua trees. The surrounding topography exerts a strong influence on one's perception of land form in the area. The joshua trees add some variety in color to the area. Water is absent. Moderate intrusions include cattle watering areas, ranches, fence lines, and a "Stuckey's" located at the intersect ion of Interstate Highway 15 and Cima Road.
Wildhorse Mesa	SIGNIFICANT: Wildhorse Mesa, like the Mid Hills sector to the north, is "cowboy country" in the scenic sense. This high, flat-topped volcanic mesa is an outstanding individual scenic feature, as well as a prominent regional landmark. Pinyon and junipers clothe it's top and upper slopes, while interesting groups of cacti cluster among the rocky flanks of the unit. Intrusions are absent. Hundreds of small, natural caves in the lava, (once used by aboriginal people) add visual interest to an already excellent scenic area.
Woods and Hackberry Mountains; Vontrigger Hills	SIGNIFICANT: From a distance, the Woods Mountains, like so many desert ranges, appear bleak. Once within, however, the viewer is treated to a variety of interesting colors, forms, textures. The profusion of petroglyphs in Woods Wash are themselves feature elements in a foreground landscape. The broad canyon which enters Woods Wash from the west presents a sea of cacti and yuccas, bounded by vertical walls. It is not only a picturesque landscape, but one that beckons the hiker, sightseer, and seeker of solitude. The Vontriggers are low hills with many abandoned mines and related debris. Vegetation is desert shrub with some joshua trees. Water is almost non-existent, and what is present has been developed for cattle. While unimpressive from any distance, the hills are visually interesting owing to a variety of earth colors and vegetational patterns.

TABLE I - 3
SIGNIFICANT AREAS

**Scenic Quality

AREA	IDENTIFIED FEATURES								Number of Identified Features	Number of Significant Features	Area Rating	Significant Areas (1)
	Arch	Geo	Hist	Paleo	Soils	Veg	W/L	S.Q.**				
East Mojave Rec. Lands	X*	X*	X*	X*	X*	X*	X*	X*	8	8	16	X
Bristol Mountains	X	-	-	-	X*	-	-	-	2	1	3	-
Castle Peaks	-	X*	-	-	-	-	-	X*	2	2	4	-
Cima Dome	-	X*	-	-	-	X*	X*	X*	4	4	8	X
Cinder Cones	X*	X*	-	-	X*	-	-	X*	4	4	8	X
Clipper Valley	-	-	-	-	-	-	X	-	1	0	1	-
Dead Mountains	X*	-	-	-	-	-	-	X	2	1	3	-
Devil's Playground	-	-	-	-	-	-	X*	X*	2	2	4	-
Fort Piute	X*	X*	X*	-	X*	X*	X*	X*	7	7	14	X
Granite Mountains	X*	X	-	-	-	X*	X*	X*	5	4	9	X
Halloran Area	-	-	-	-	-	-	-	-	0	0	0	-
Hidden Hills and Van Winkle Mountains	-	-	-	-	-	-	-	X	1	0	1	-
Homer Mountain	-	-	-	-	-	X*	-	-	1	1	2	-
Ivanpah Mountains and Mescal Range	X*	X*	-	-	X*	-	-	X*	4	4	8	X

* Features that have been rated as being significant when compared to the desert wide region.

(1) Significant Areas are those that have an area rating of 6 or more. Area rating is determined by adding the number of identified features with the number of significant features.

TABLE I - 3 (cont.)
SIGNIFICANT AREAS

**Scenic Quality

AREA	IDENTIFIED FEATURES								Number of Identified Features	Number of Significant Features	Area Rating	Significant Areas (1)
	Arch	Geo	Hist	Paleo	Soils	Veg	W/L	S.Q.**				
Ivanpah Playa	X*	-	-	-	-	-	-	-	1	1	2	-
Ivanpah Valley	-	-	-	-	-	-	X	-	1	0	1	-
Kelso and Cima Valleys	-	-	-	-	-	-	X	X	2	0	2	-
Kelso and Marl Mountains	-	-	-	-	-	-	-	X	1	0	1	-
Kelso Dunes	-	X*	-	-	-	X	X*	X*	4	3	7	X
Lanfair and Piute Valleys	X*	-	X*	-	-	X*	X	X	5	3	8	X
Mid Hills	X	-	-	-	-	X*	X*	X*	4	3	7	X
New York Mountains	-	X	-	-	-	X*	X*	X*	4	3	7	X
Old Dad Mountain	X	X	-	-	-	-	-	X*	3	1	4	-
Piute and Fenner Valleys	-	-	-	X*	-	X	X	-	3	1	4	-
Piute Mountains	-	-	-	-	-	-	-	X	1	0	1	-
Piute Range and Castle Mountains	X	-	-	-	X*	-	X*	X	4	2	6	X
Providence Mountains	-	X*	X*	X	-	X	X	X*	6	3	9	X
Round Valley	-	X	X*	-	-	X*	X	X*	5	3	8	X

TABLE I - 3 (cont.)
SIGNIFICANT AREAS

**Scenic Quality

AREA	IDENTIFIED FEATURES								Number of Identified Features	Number of Significant Features	Area Rating	Significant Areas (1)
	Arch	Geo	Hist	Paleo	Soils	Veg	W/L	S.Q.**				
Sacramento Mountains	-	-	-	-	-	X*	-	X	2	1	3	-
Shadow Valley	-	-	-	-	-	-	X*	X	1	1	2	-
Wildhorse Mesa	X*	X*	X*	-	-	X	X	X*	6	4	10	X
Woods and Hackberry Mts; Vontrigger Hills	X	-	-	X*	-	X	X	X*	5	2	7	X

II

APPENDIX
II

APPENDIX II

EAST MOJAVE PLANNING AREA ANALYSIS

Recreation and Education Research

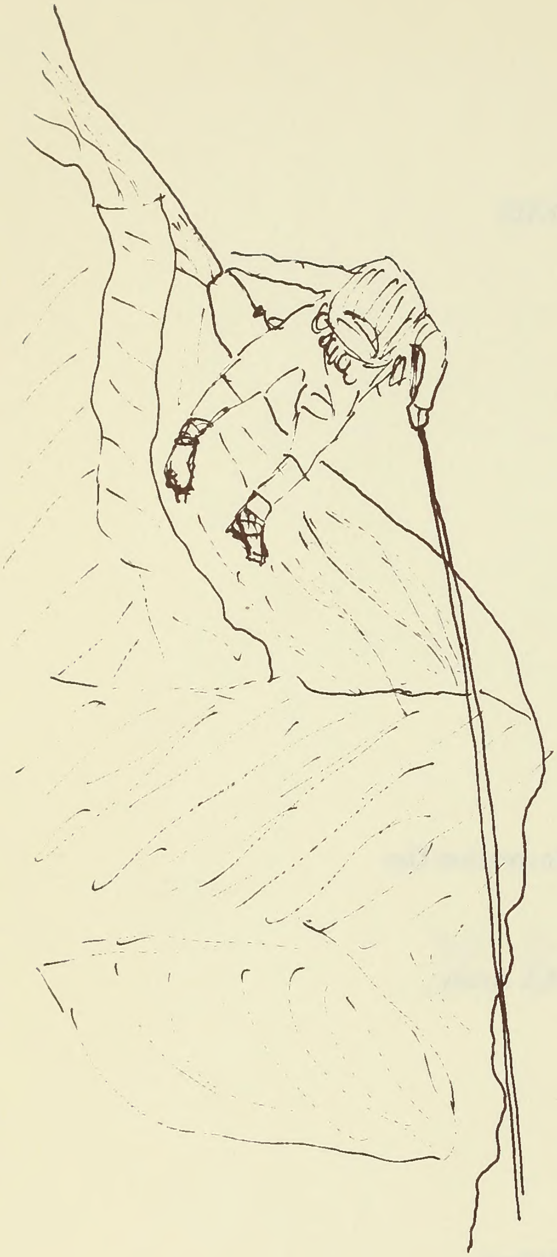
Recreation:
A. Introduction

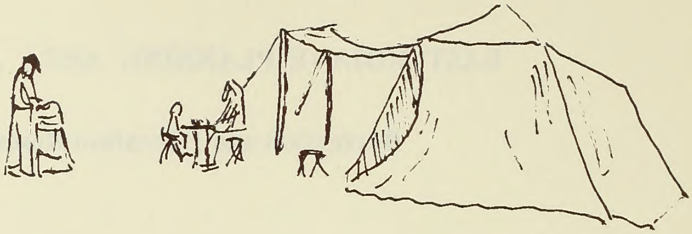
B. Economic Significance

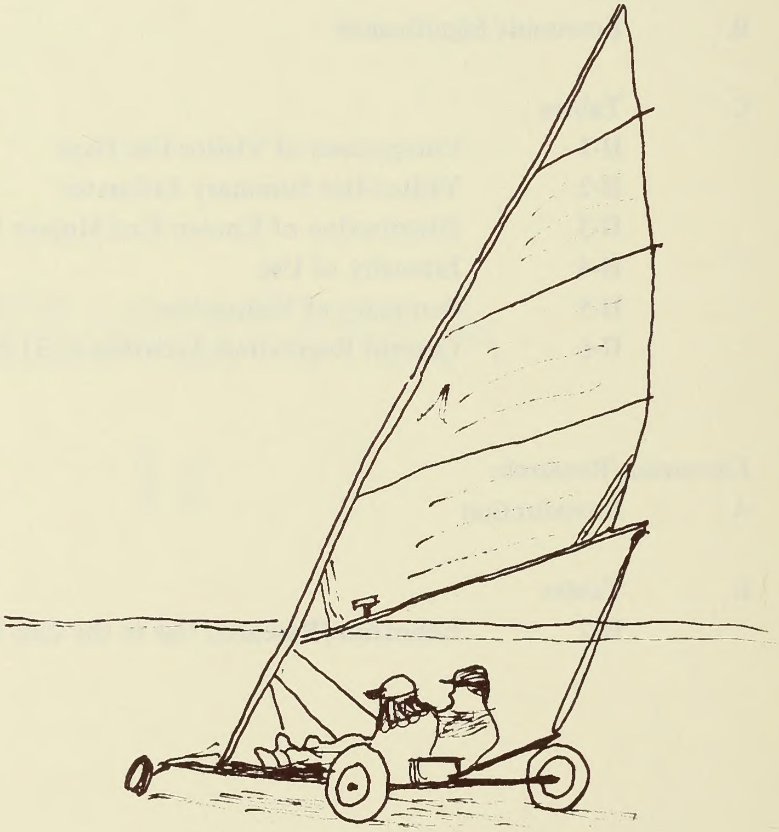
C. Tables
  II-1 Comparison of Visitor-Use Days
  II-2 Visitor-Use Summary Estimates
  II-3 Distribution of Known East Mojave Recreation Use
  II-4 Intensity of Use
  II-5 Summary of Visitor-Use
  II-6 Current Recreation Activities in 31 PAA Areas

Education/Research:
A. Introduction

B. Tables
  II-7 Education/Research Use in the East Mojave







RECREATION

INTRODUCTION

An estimated 35,000 recreational visits were made to the East Mojave Planning Area in 1975, involving some 44,000 visitor-use days. While this is quite low when compared with certain other intensively used areas of the desert, it represents a very broad spectrum of diverse recreational pursuits. Despite the low overall figure, (for an area encompassing some 2 million acres) certain specific sites are intensively used.

As a basis of comparison with East Mojave recreation use, the Yuha Planning Unit receives 25 times as much recreation use per square mile, and the Red Mountain Planning Unit 5 times as much. Competitive motorcycle racing, which is a key element in the high use of these other planning units, is a very low and localized use in the East Mojave.

Fifteen significant (reliably discernable) recreation use areas (polygons on Overlays III-R-15 and 16) have been identified. Visitor-use data has been compiled on the basis of 21 aerial flights (2-16-75 through 12-30-75) and limited on-the-ground observation and interviews. In general, estimated margins of error on figures presented equal 25 percent, plus or minus. Data for visitor-use at Kokoweef Cave and Providence Mountains State Recreation Area (Mitchell Caverns) were furnished by personnel at these sites. Hunting data was supplied by the California Department of Fish and Game. Information on education and research is from a preliminary contract report by the University of California at Berkeley, "Education and Research in the California Desert". Competitive motorcycle racing estimates are from Joe Williams, Staff Specialist, Las Vegas District, Bureau of Land Management.

Analysis of existing recreation activities for the 31 areas defined in the PAA was accomplished, using the above data. Recreation activities having a higher than average rate of occurrance for that particular activity, compared to the desert wide region, were considered important. Eight of these 31 areas could be best described as "prime" for one or more of these important activities. In other words, these areas have the best qualities on a desert wide basis for certain forms of recreation. The specific activities that are important and occur in prime areas are deer hunting, upland game hunting, archery, sand sailing, backpacking, and caving.

The relatively low, present recreational use of the East Mojave should not be misconstrued as an index to future use. The general public has very little knowledge of the outstanding and unique resources and recreational values of the East Mojave. Only in recent years has the California public, limited in it's outdoor recreational opportunities by population growth and urbanization, moved outward and eastward, discovering and utilizing the resources of the California Desert. This trend will undoubtedly continue, perhaps at an astounding rate, as California's population attains it's predicted 40 million mark in the next 30-40 years.

The remarkable scenic, natural, and recreational values of the East Mojave, already well known to science and park and recreation professionals, will undoubtedly provide expanded opportunities to California citizens as it's values are recognized in the years ahead. The California State Department of Parks and Recreation has identified much of the area within the East Mojave Planning Units as "*. . . having the potential for a large state or possibly national park . . .*".*

* Letter from Herbert Rhodes, Director, California State Parks, March 26, 1976, reiterating the 1968 State Park Plan.

ECONOMIC SIGNIFICANCE ●

Quantitative information relative to outdoor recreation expenditures within the California Desert is not presently available. Discussion with the San Bernardino County Economic Development Department also revealed the absence of recreation expenditure data for the desert areas of San Bernardino County. The absence of desert wide outdoor recreation expenditure habits of desert recreationists, precludes the possibility of estimating the amount and significance of visitor expenditures in the East Mojave.

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TABLE II - 1

COMPARISON OF VISITOR USE

EAST MOJAVE, RED MOUNTAIN, YUHA PLANNING UNITS and the CALIFORNIA DESERT

Area	Visitor Use Days *	East Mojave as % of area
Desert Wide (1)	3.5 million	1.46
Desert Wide (2)	14.0 million	0.31
Desert Wide (3)	10.0 million **	0.44
Yuha	285,452	15.40
Red Mountain	82,687	53.30
East Mojave	40,877	100.00

Sources:

1. BLM Aerial Flights - Riverside - Bakersfield Districts
2. BLM - Sacramento State Office
3. SCAG - Outdoor Recreation Plan and Capitol Improvement Program, 1972, pgs. 5 & 6; Data is for desert areas of Imperial, Riverside, San Bernardino, and Los Angeles Counties only.

* BLM Studies define visitor-use day as one person spending 12 hours in outdoor recreational activity.

** Visitor day as used in SCAG Study is one person spending one day or part of a day participating in outdoor recreation only.

TABLE II - 2

VISITOR USE SUMMARY ESTIMATES
EAST MOJAVE PLANNING UNITS

ACTIVITY	VISITOR USE DAYS PER YEAR	VISITS PER YEAR
General Recreation Activities*	11,199	3,891
Camping	11,211	3,750
Mitchell Caverns (State)	8,145	16,388
Education/Research	4,947	2,792
Sand Sailing	4,072	1,240
Rock and Mineral Collecting	2,901	967
Hunting (Deer)	1,212	404
Kokoweef Cave (Private)	593	1,716
Competitive Motorcycle Racing	50	750
TOTALS		
All Lands	40,877	30,646
Public Lands	35,337	13,721

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* Includes recreationists observed on aerial flights and ground reconnaissance but not specifically identified as to precise activity. May include additional users in other catagories in this table.

TABLE II - 3

DISTRIBUTION OF KNOWN EAST MOJAVE RECREATION USE

No. *	AREA	ANNUAL VISITS	ANNUAL VUD's	RELATIVE USE **
12	Mitchell Caverns	16,863	8,432	High
10	Hole-in-the-Wall	1,778	5,273	High
9	Mid Hills	1,747	5,179	High
4	Ivanpah Lake	1,378	4,524	High
14	Hackberry Wash	967	2,901	Medium
3	Granite Mountains	771	2,252	Medium
8	New York Mountains	606	1,627	Medium
11	Providence Mountains	518	1,516	Medium
2	Kelso Dunes	650	1,298	Medium
7	Cima Dome	450	1,246	Medium
13	Fort Piute	364	1,118	Medium
1	Devil's Playground	218	624	Low
6	Kokoweef Cave	1,716	593	Low
5	Ivanpah Mountains	92	276	Low
15	Nipton	750	50	Low
--	Other	1,778	3,968	–
	TOTAL	30,646	40,877	

* Overlay polygon numbers (See Overlays III-R-15,16,&17)
** Relative within the Planning Units

TABLE II - 4

INTENSITY OF USE *
EAST MOJAVE PLANNING UNITS

NO. **	USE SECTOR NAME	SQ. MILES APPROX.	ANNUAL VUD's	VUD's/ SQ. MILE	DEGREE*** OF USE
12	Mitchell Caverns	1	8,432	8,432	Intense
10	Hole-in-the-Wall	3	5,273	1,758	Intense
14	Hackberry Wash	3	2,901	967	Heavy
9	Mid Hills	8	5,179	647	Heavy
6	Kokoweef Cave	1	593	593	Heavy
4	Ivanpah Lake	16	4,524	283	Moderate
13	Fort Piute	5	1.118	224	Moderate
2	Kelso Dunes	13	1,298	100	Moderate
3	Granite Mountains	46	2,252	49	Moderate
7	Cima Dome	32	1,246	39	Moderate
8	New York Mountains	56	1,627	29	Moderate
11	Providence Mountains	56	1,516	27	Moderate
15	Nipton	2	50	25	Moderate
1	Devil's Playground	45	624	14	Low
5	Ivanpah Mountains	25	276	11	Low
-	Other	2,804	3,968	1	Low

* Intensity of Use = $\frac{\text{Total Annual VUD's/Use Sector}}{\text{Number Square Miles in Use Sector}}$

Degree of use is a good indication of the relative intensity of concentration of recreation visitors, since it considers numbers of visitors in terms of time spent and spatial distribution.

** Overlay polygon numbers (See Overlays III-R-15,16,&17)

*** By definition:

Intense = Over 1,000 Annual VUD's/Square mile
Heavy = 501 - 1,000 Annual VUD's/Square mile
Moderate = 25 - 500 Annual VUD's/Square mile
Low = Under 25 Annual VUD's/Square mile

TABLE II - 5

SUMMARY OF VISITOR USE – EAST MOJAVE PLANNING UNITS

NO.*	AREA		HUNTING	RESEARCH/ EDUCATION	CAMPING	MISC.	TOTAL
1	Devil's Playground	Visitors	–	–	–	218	218
		VUD's	–	–	–	624	624
2	Kelso Dunes	Visitors	–	412	–	238	650
		VUD's	–	614	–	684	1,298
3	Granite Mtns	Visitors	1	232	161	377	771
		VUD's	3	658	477	1,114	2,252
4	Ivanpah Lake	Visitors	–	–	138	1,240	1,378
		VUD's	–	–	452	4,072	4,524
5	Ivanpah Mtns	Visitors	4	–	–	88	92
		VUD's	12	–	–	264	276
6	Kokoweef Cave	Visitors	–	–	–	1,716	1,716
		VUD's	–	–	–	593	593
7	Cima Dome	Visitors	1	138	–	311	450
		VUD's	3	310	–	933	1,246
8	New York Mtns	Visitors	311	138	31	126	606
		VUD's	933	304	78	312	1,627
9	Mid Hills	Visitors	56	31	1,544	116	1,747
		VUD's	168	31	4,633	347	5,179
10	Hole-in-the-Wall	Visitors	–	31	1,572	175	1,778
		VUD's	–	31	4,718	524	5,273
11	Providence Mtns	Visitors	12	243	158	105	518
		VUD's	36	803	406	271	1,516
12	Mitchell Caverns	Visitors	–	475	–	16,388	16,863
		VUD's	–	287	–	8,145	8,432
13	Fort Piute	Visitors	–	–	146	218	364
		VUD's	–	–	447	671	1,118
14	Hackberry Wash	Visitors	–	–	–	967	967
		VUD's	–	–	–	2,901	2,901
15	Nipton	Visitors	–	–	–	750	750
		VUD's	–	–	–	50	50
	Other	Visitors	19	1,092	–	667	1,778
		VUD's	57	1,909	–	2,002	3,968
TOTALS:		Visitors	404	2,792	3,750	23,700	30,646
		VUD's	1,212	4,947	11,211	23,507	40,877

* Overlay polygon numbers (See Overlays III-R-15,16,&17)

TABLE II - 6
CURRENT RECREATION ACTIVITIES IN 31 PAA AREAS

AREA	ACTIVITIES OCCURING	ABOVE DESERT WIDE AVERAGE FOR SIMILAR ACTIVITY	PRIME AREA FOR ACTIVITY COMPARED TO DESERT WIDE REGION
Bristol Mtns	Unknown		
Castle Peaks	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing		
	Painting and Photography		
	Rock climbing		
Cima Dome	Hunting/deer	X	
	Hunting/upland game	X	X
	Sightseeing	X	
	Painting and Photography	X	
Cinder Cones	Hunting/upland game		
	Sightseeing	X	
	Caving		
	Painting and Photography		
Clipper Valley	Unknown		
Dead Mtns	Sightseeing		
	Painting and Photography		
Devil's Playground	Rock collecting		
	Painting and Photography		
Fort Piute	Sightseeing	X	
	Painting and Photography		
	Camping		
	Picnicking	X	
	Hiking		
Granite Mtns	Rock collecting		
	Hunting/deer	X	
	Hunting/upland game	X	
	Sightseeing		
	Camping		
	Hiking/desert peaks	X	
	Painting and Photography		
Halloran Area	Unknown		

TABLE II - 6 (cont.)
CURRENT RECREATION ACTIVITIES IN 31 PAA AREAS

AREA	ACTIVITIES OCCURING	ABOVE DESERT WIDE AVERAGE FOR SIMILAR ACTIVITY	PRIME AREA FOR ACTIVITY COMPARED TO DESERT WIDE REGION
Hidden Hills and Van Winkles	Rock collecting		
	Hunting/upland game		
	Sightseeing		
Homer Mtn	Metal hunting		
Ivanpah Mtns and Mescal Range	Rock collecting		
	Hunting/deer		
	Hunting/upland game	X	
	Sightseeing		
	Caving	X	
	Camping		
	Picnicking		
	Painting and Photography		
Ivanpah Playa	Archery	X	X
	Sightseeing		
	Sand sailing	X	X
Ivanpah Valley	Sightseeing		
	Motorcycle racing		
Kelso and Cima Valley	Picnicking		
Kelso and Marl Mtns	Painting and Photography		
Kelso Dunes	Sightseeing	X	
	Painting and Photography	X	
	Camping		
	Hiking		
Lanfair and Pinto Valleys	Hunting/upland game	X	
	Sightseeing		
Mid Hills	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing		
	Painting and Photography		
	Hiking	X	
	Camping	X	
	Horseback riding	X	
	Rock climbing		

TABLE II - 6 (cont.)
CURRENT RECREATION ACTIVITIES IN 31 PAA AREAS

AREA	ACTIVITIES OCCURING	ABOVE DESERT WIDE AVERAGE FOR SIMILAR ACTIVITY	PRIME AREA FOR ACTIVITY COMPARED TO DESERT WIDE REGION
New York Mtns	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing		
	Caving		
	Painting and Photography		
	Camping		
	Hiking/desert peaks	X	
	Backpacking		
Old Dad Mtn	Rock collecting		
	Sightseeing		
	Caving		
	Hiking/desert peaks	X	
Piute and Fenner Valleys	Hunting /upland game		
	Sightseeing		
	Painting and Photography		
	Picnicking		
	Metal hunting		
Piute Mtns	Rock collecting		
	Hunting/upland game		
Piute Range and Castle Mtns	Rock collecting		
	Hunting/upland game	X	
	Sightseeing		
	Camping		
	Metal hunting		
Providence Mtns	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing		
	Caving	X	X
	Painting and Photography	X	
	Backpacking	X	X
	Hiking	X	
	Climbing/desert peaks	X	
	Camping		
Round Valley Area	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing		
	Painting and Photography		

TABLE II - 6 (cont.)
CURRENT RECREATION ACTIVITIES IN 31 PAA AREAS

AREA	ACTIVITIES OCCURING	ABOVE DESERT WIDE AVERAGE FOR SIMILAR ACTIVITY	PRIME AREA FOR ACTIVITY COMPARED TO DESERT WIDE REGION
Sacramento Mtns	Rock collecting		
	Hunting/upland game	X	
	Sightseeing		
Shadow Valley	Sightseeing		
	Hunting/upland game	X	
Wildhorse Mesa	Rock collecting		
	Hunting/deer	X	X
	Hunting/upland game	X	
	Sightseeing	X	
	Caving		
	Painting and Photography		
	Hiking	X	
	Camping	X	
	Rock climbing		
Wood's, Hackberry's and Vontrigger's areas	Rock collecting		
	Hunting/upland game	X	
	Sightseeing		
	Painting and Photography		
	Hiking	X	
	Camping		

EDUCATION/ RESEARCH IN THE EAST MOJAVE

INTRODUCTION

Education and research is a dominant use of the East Mojave Planning Units, according to a preliminary research report of educational use of the California Desert*. Education/research use in the East Mojave Planning Area is estimated at 4,947 visitor-use days per year. Camping is the only known use with more visitor-use days per year. The report also shows that five of the ten most used areas in the California Desert are in the East Mojave Planning Units, including the two most used areas: Providence Mountains and the Kelso Sand Dunes. The others are: Granite Mountains, New York Mounatins, and Cima Dome.

Research and instruction are currently conducted in the East Mojave by at least eleven different institutions, including:

Barstow College
California Poytechnic at Pomona
Chaffey College at Alta Loma
Citrus College at Azusa
San Bernardino Valley College
University of California at Davis
University of California at Los Angeles
University of California at Riverside
University of California at Santa Barbara
University of Southern California
Victor Valley College

Table 7 contains a complete quantitative breakdown of use. This information is preliminary and is based upon the "Education and Research Use" interim report. Figures will likely increase with data in the final report.

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* Papenfuss, Ted, 1976, "Education and Research Use in the California Desert". BLM contract report in progress, University of California at Berkeley, California.

TABLE II - 7

EDUCATION/RESEARCH USE IN THE EAST MOJAVE

AREA	NUMBER OF KNOWN CLASSES	NUMBER OF KNOWN RESEARCH PROJECTS	ANNUAL VISITS BY STUDENTS	ANNUAL VISITS BY FACULTY	ANNUAL VISITOR USE DAYS
Providence Mountains	9	4	233	10	803
Granite Mountains	7	2	230	2	658
Kelso Dunes	9	1	405	7	614
Cima Dome	5	1	135	3	310
New York Mountains	5	0	135	3	304
Mitchell Caverns	5	0	470	5	287
Hole-in-the-Wall	1	0	30	1	31
Mid Hills	1	0	30	1	31
South Pass	0	1	0	1	13
General East Mojave	18	3	1,070	21	1,896
TOTALS	60	12	2,738	54	4,947

III

APPENDIX
III

APPENDIX III

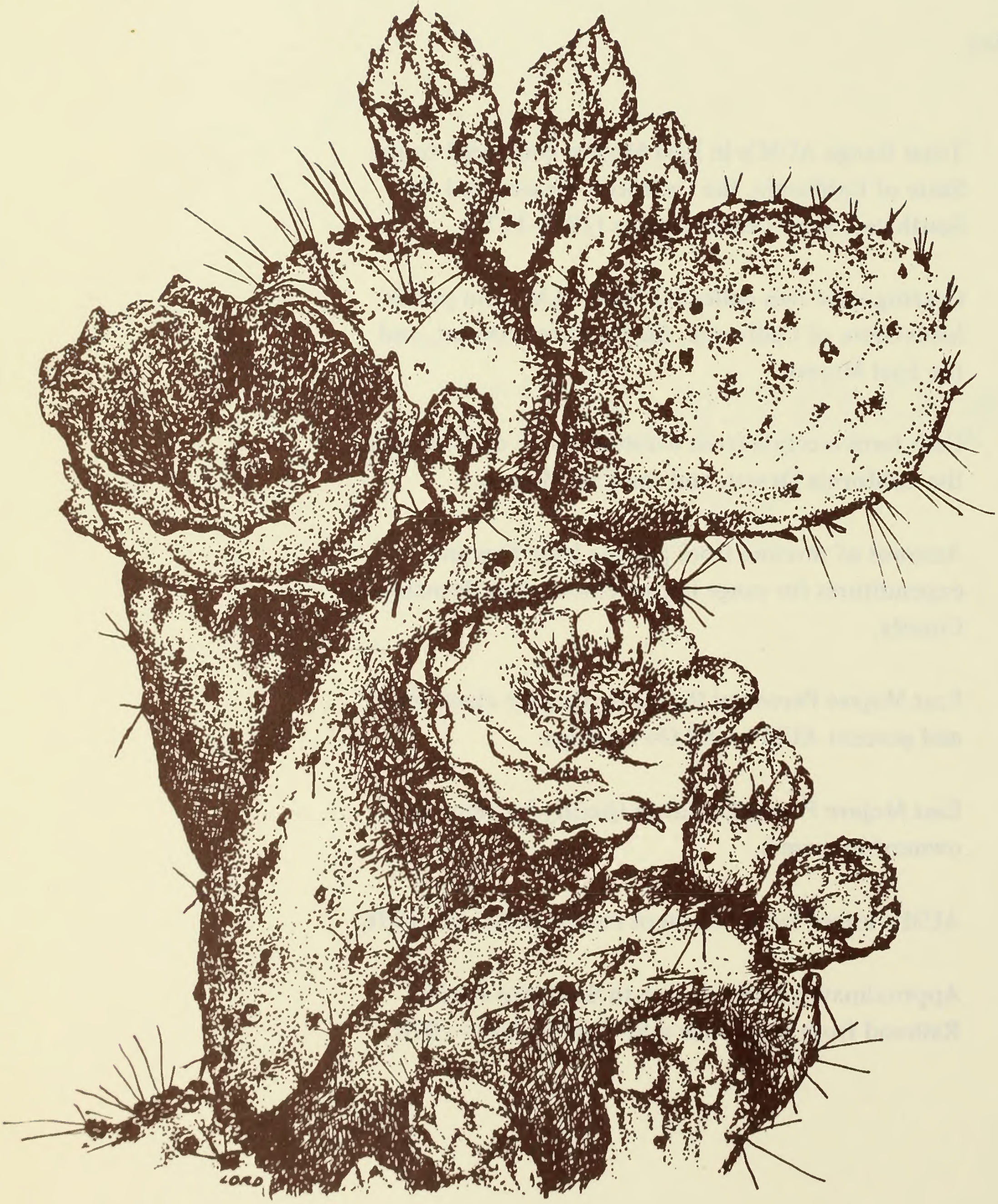
EAST MOJAVE PLANNING AREA ANALYSIS

Range

A. Introduction

B. Tables

III-1	Total Range AUM's in East Mojave compared to the State of California, the California Desert, and the Southwest Semi-Desert Ranges (1974-1976).
III-2	Grazing lease fees collected from BLM from public lands-State of California, the California Desert, and the East Mojave.
III-3	Cash farm receipts from livestock-State of California, the California Desert, and the East Mojave.
III-4	Amount of revenue from grazing lease fees and expenditures for range improvements-San Bernardino County.
III-5	East Mojave Perennial Range Quality by class, acres and percent AUM's - All Ownerships.
III-6	East Mojave Perennial Range Quality by class, and ownership (acres).
III-7	AUM's leased from Southern Pacific Railroad - 1976.
III-8	Approximate yearly income to Southern Pacific Railroad from vegetative sales-East Mojave - 1976.



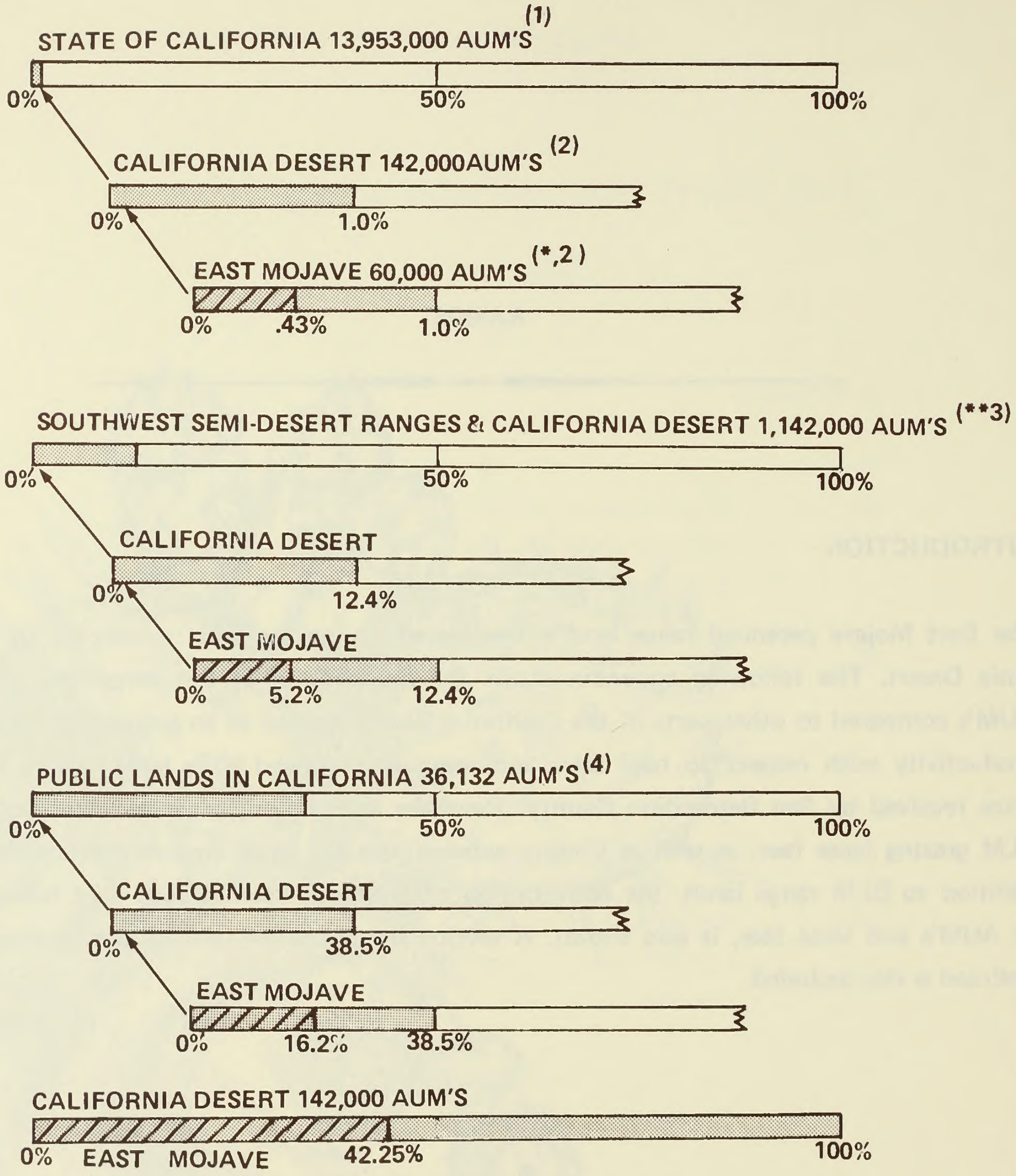
Rendering by Alice Lord
SanBernardino, California

RANGE

INTRODUCTION

The East Mojave perennial range land is considered among the most productive in the California Desert. The following appendix shows the productivity of this range land in terms of AUM's compared to other parts of the California Desert, as well as an estimate of it's economic productivity with respect to beef sales and revenues produced from lease fees to BLM, and taxes received by San Bernardino County. Revenues received by San Bernardino County from BLM grazing lease fees, as well as County expenditures for range improvements are shown. In addition to BLM range lands, the contribution of Southern Pacific range land leases in terms of AUM's and lease fees, is also shown. A section on vegetative sales by the Southern Pacific Railroad is also included.

TABLE III-1



* Private and public lands only; excludes Southern Pacific Lands. Sixty thousand AUM's is considered to be present carrying capacity. Although actual use data is not available, range observations tentatively indicate that actual use may have reached or exceeded 120,000 AUM's. Estimated forage consumption by burros is 4,500 AUM's. Burro population is estimated at 375 (see memo of June 24, 1976 from Don Heinze to Cima Resource Area Manager).

** Arizona, New Mexico, Texas.

Source:

1. Clawson, James W., "The Use of California Rangelends" in Wildliand Resources, Vol. 4, No. 3, May 12, 1976.
2. Riverside and Bakersfield District Offices and DPS.
3. Martin, S. Clark, "Why Graze Semi-Desert Ranges", in Journal of Soil and Water Conservation, Vol. 30, No. 4, July-August, 1975.
4. Public Land Statistics, 1975. U.S.D.I.-BLM.

TABLE III - 2

GRAZING LEASE FEES COLLECTED FROM BLM LANDS IN CALIFORNIA, THE CALIFORNIA DESERT, AND THE EAST MOJAVE- 1975*

Area	Total Lease Fee	East Mojave as % of area
California - public lands	$ 167,198 (1)	28.7 %
California Desert	115,000 (2)	41.7 %
East Mojave	48,000 (3)	100.0 %

* Taylor Grazing Act - Section 15 Leases

Source:
(1) Public Land Statistics - 1975
(2) Estimate based on AUM's
(3) Riverside District Files

TABLE III - 3

CASH FARM RECEIPTS FROM LIVESTOCK - STATE OF CALIFORNIA, THE CALIFORNIA DESERT, AND THE EAST MOJAVE

Area	Receipts	East Mojave as % of area
State of California*	1.3 billion	0.038 to 0.077 %
California Desert**	2.0 million	25.0 to 50.0 %
East Mojave***	.5 to 1.0 million	100.0 %

* California Statistical Abstract, 1974 (Cattle, Calves, Sheep)

** Estimate by Desert Planning Staff (1975)

*** Total effect on the economy from East Mojave beef production is estimated at .75 million to 1.5 million. However, recent grazing cuts in the East Mojave will no doubt reduce total income to ranchers, as well as grazing fees in the coming years. Collectively the East Mojave ranchers paid approximately $46,000 in grazing fees from early 1975 to early 1976, (Source: Riverside District Files).

TABLE III - 4

AMOUNT OF REVENUE FROM GRAZING LEASE FEES and EXPENDITURES FOR RANGE IMPROVEMENTS – SAN BERNARDINO COUNTY *

Period	Total Revenue	Total Expenditures	% of Expenditures Spent for Range Improvements in East Mojave
7/1/73 – 6/30/76	$ 81,536	$ 47,089	100%

* County received 50% of BLM grazing lease fees.

Source: San Bernardino County, Real Property Division - 1976.

TABLE III - 5

EAST MOJAVE PERENNIAL RANGE QUALITY BY CLASS, ACRES, AND PERCENT AUM'S - ALL OWNERSHIPS

Range Quality Class	Acres	%	% AUM's
Good	273,723	14.96	60.8
Moderate	210,311	11.49	31.8
Fair	136,164	7.44	7.4
Poor *	1,209,537	66.11	0
TOTAL	1,829,735	100.00	100.0

* Ephemeral Range Only.

Source: Desert Plan Staff (DPS) - 1976.

TABLE III - 6
EAST MOJAVE
PERENNIAL RANGE QUALITY BY CLASS AND OWNERSHIP

OWNERSHIP

RANGE QUALITY	SOUTHERN PACIFIC	STATE	OTHER PRIVATE	BLM	TOTAL
GOOD	9,204 (7%)	9,921 (14%)	29,059 (32%)	225,539 (15%)	273,723 (15%)
MODERATE	7,033 (5%)	9,773 (14%)	17,675 (19%)	175,830 (11%)	210.311 (12%)
FAIR	19,469 (15%)	7,247 (10%)	6.003 (7%)	103,445 (7%)	136,164 (7%)
POOR	92,972 (73%)	44,242 (62%)	39,299 (42%)	1,033,024 (67%)	1,209,537 (66%)
TOTAL	128,678 (100%)	71,183 (100%)	92,036 (100%)	1,537,838 (100%)	1,829,735 (100%)

Range Quality by Class and Ownership
(Percentage of each class by an ownership type)

RANGE QUALITY CLASS

OWNERSHIP	GOOD	MODERATE	FAIR	POOR	TOTAL
SOUTHERN PACIFIC	9,204 (3%)	7,033 (3%)	19,469 (14%)	92,972 (8%)	128,678 (7%)
STATE	9,921 (4%)	9,773 (5%)	7,247 (5%)	44,242 (4%)	71,183 (4%)
OTHER PRIVATE	29,059 (11%)	17,675 (8%)	6,003 (4%)	39,299 (3%)	92,036 (5%)
BLM	225,539 (82%)	175,830 (84%)	103,445 (77%)	1,033,024 (85%)	1,537,838 (84%)
TOTAL	273,723 (100%)	210,311 (100%)	136,164 (100%)	1,209,537 (100%)	1,829,735 (100%)

Range Quality by Ownership and Class
(Percentage of each ownership in a class)

TABLE III - 7

AUM'S LEASED FROM SOUTHERN PACIFIC RAILROAD
1976

	AUM'S	%	Fee Amount
East Mojave	24,100	83.0	$ 48,200
Other Desert Areas	5,100	17.0	$ 10,200
Total California Desert	29,200	100.0	$ 58,400

Source: Discussion with Lloyd Norton
Southern Pacific Land Company, 7/18/76

TABLE III - 8

APPROXIMATE YEARLY INCOME TO SOUTHERN PACIFIC RAILROAD FROM VEGETATIVE SALES – EAST MOJAVE – 1976

Type	Approximate Income
Cactus	$ 1,000 to $ 1,300
Yucca	$ 2,700 to $ 3,700

Source: Southern Pacific Railroad, 6/76

APPENDIX
IV

APPENDIX IV

EAST MOJAVE PLANNING AREA ANALYSIS

Minerals

A. Introduction

B. Tables
IV-1 Minerals Resource Areas - Past, Present and Future Potential

Figures

C. IV-1 Mineral Resources Classification
IV-2 Mineral Resource Areas (Locatable)
IV-3 Mineral Resource Areas (Leaseable)
IV-4 Mineral Resource Areas (Saleable)

Rendering by Alice Lord
San Bernardino, California

MINERALS

INTRODUCTION

The East Mojave has been prospected almost continuously since the discovery of lead ores near Goodsprings, Nevada in 1854. Most of the larger deposits of gold, silver, and copper were discovered between1865 and 1892. Activity declined during the panic of 1893, but cycles of more intensive search were stimulated by the completion of the Union Pacific Railroad in 1905; higher prices for base metals during World War I; the increased price of gold in 1938; the development of a portable ultraviolet lamp in 1936; higher prices during World War II; the availability of portable Geiger counters in 1947; high prices for tungsten in 1951 - 55; and the increasing prices of gold and silver since 1968.

Mineral production in the East Mojave is virtually non-existent, except for the Rare Earth Mine at Mountain Pass. This mine, however, is outside the planning area boundary, although adjacent to it.

Table IV-1 shows mineral production; past. present, and potential.
Figure IV-2 shows the general location of locatable mineral areas.
Figure IV-3 shows the general location of leaseable mineral areas within the planning area.
Figure IV-4 shows the general location of saleable minerals.

TABLE IV - 1
MINERAL RESOURCE AREAS
PAST AND PRESENT PRODUCTION AND FUTURE POTENTIAL

(1) See Fig.IV-2 (2) See Fig.IV-1

MINERAL RESOURCE AREA		COMMODITIES	HISTORIC PRODUCTION	CURRENT PRODUCTION	MINERAL POTENTIAL (2)	REMARKS
No.	Name (1)					
1	Halloran	Gold, Silver, Copper	$100,000 (1932 - 38) (considerable tonnage @ $8 - $14/ton-1953)	None	High	See Fig.IV-1 (B-3)
2	Lava Beds	Gold, Silver, Zinc, Copper, Lead, Molybdenum, Sand and Gravel	Unknown	None	Low	See Fig.IV-1 (C-4)
3	Marl Mtns	Copper, Lead, Gold, Tungsten, Uranium	34 tons gold ore (1925 - 41) (1950)	None	Low	See Fig.IV-1 (C-4)
4	Old Dad Mtns	Molybdenum, Gold, Uranium, Copper, Iron, Building stone	* 1100 tons, $17,600 (1932 - 35, mostly gold) * (450,000 tons, Iron) * $100,000-$200,000, gold (1900 -1952) * $95,000 (1930 - 45) * $95,000 (1930 - 40's) * Few thousand tons gold ore @ $110/ton, (1928 - 35)	None	High	See Fig.IV-1 (A-3)
5	Kelso Mtns	Copper, Molybdenum, Gold, Iron, Silver	* 200 tons Iron during WW-I	None	Low	See Fig.IV-1 (A-4)
6	Kelso Dunes	Iron, Titanium, Gold, Platinum, Black sand, (65% Iron)	(see remarks)	None (see remarks)	High	Experimantatation and analysis. No known sales. 1960-70's See Fig.IV-1 (A-2)
7	Granite Mtns	Iron, Zinc, Molybdenum, Silver, Lead	Unknown	None	Medium	See Fig.IV-1 (C-3)

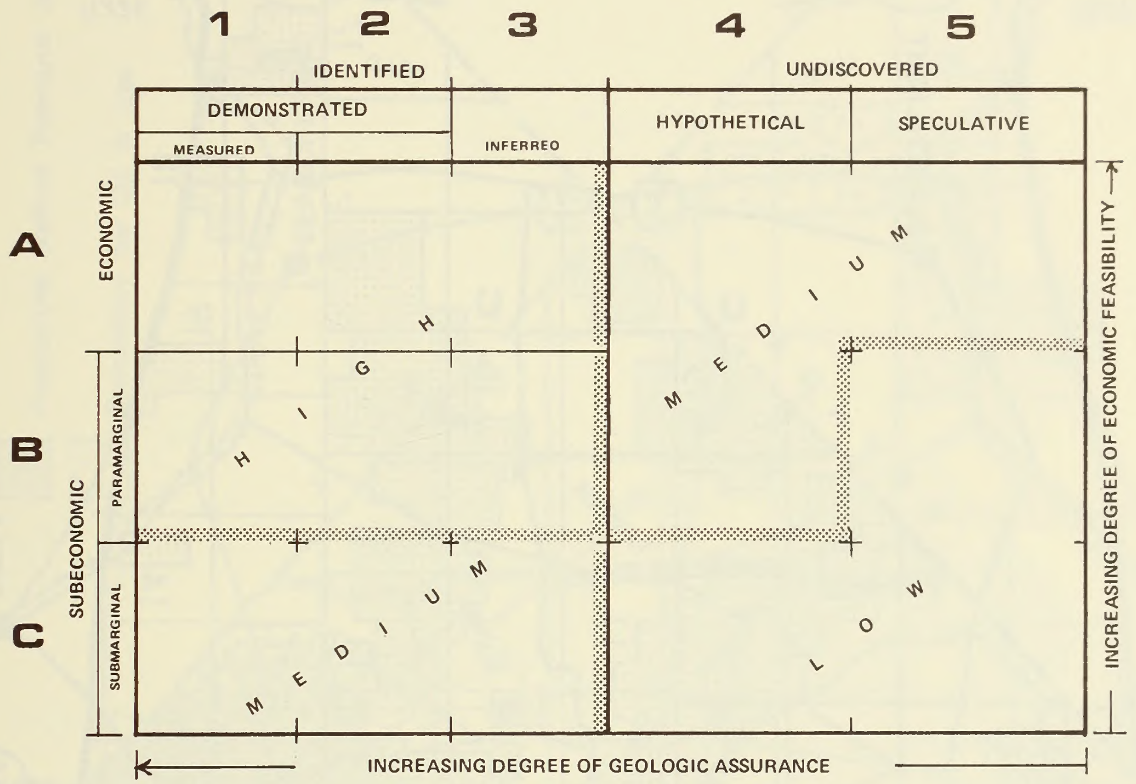
TABLE IV - 1 (cont.)
MINERAL RESOURCE AREAS
PAST AND PRESENT PRODUCTION AND FUTURE POTENTIAL

MINERAL RESOURCE AREA		COMMODITIES	HISTORIC PRODUCTION	CURRENT PRODUCTION	MINERAL POTENTIAL	REMARKS
No.	Name					
8	Bristol Mtns	Tungsten, Potash Salts, Gold, Building stone	Unknown	None	Medium	See Fig.IV-1 (C-3)
9	Ivanpah Lake	Uranium, Lithium	Unknown	None	Low	See Fig.IV-1 (C-4) drilling, 4/76
10	Ivanpah and Mescal Range	Thorium, Uranium, Molybdenum, Gold, Zinc, Silver, Copper, Lead, Tungsten, Titanium, Fluorite, Vanadium, Rare earths, Limestone, Antimony	* Considerable production of gold, silver, lead, copper, zinc. Plus several hundred tons of building stone		Medium	See Fig.IV-1 (C-3)
11	New York Mtns	Silver, Copper, Zinc, Lead, Gold, Tungsten, Uranium, Fluorite, Molybdenum, Limestone, Mica, Mercury, Rare earths	Yes	None	Medium	See Fig.IV-1 (C-3)
12	Providence Mtns	Clay, Lead, Copper, Silver, Gold, Zinc, Molybdenum, Silica, Tungsten, Fluorite, Iron, Uranium, Barite	* Gold, lead, copper - $2,000,000(1893 - 1936) Gold, lead * 3,000,000 tons Iron (1942 - 47)	None	Medium	Iron reserves exist (Vulcan Mine) See Fig.IV-1 (C-3)
13	Hackberry	Semi-precious stones, Gold, Clay, Perlite, Building stone	Unknown	None	Medium	See Fig.IV-1 (C-3)
14	Fenner Valley	Gold, Silica, Copper	Unknown	None	Medium	See Fig.IV-1 (C-3)

TABLE IV-1 (cont.)
MINERAL RESOURCE AREAS
PAST AND PRESENT PRODUCTION AND FUTURE POTENTIAL

MINERAL RESOURCE AREA		COMMODITIES	HISTORIC PRODUCTION	CURRENT PRODUCTION	MINERAL POTENTIAL	REMARKS
No.	Name					
15	Castle Mtns	Gold, Perlite, Clay, Silicon	* Gold, 3-4,000 tons @ $12/ton (1907-1940) * Clay, 92,000 tons + (1921-51) * Silica, 2000 tons (1930's - 50's) * Perlite, large production (1947-51)	None	Medium	See Fig.IV-1 (C-2)
16	Vontrigger - Piute	Gold, Copper, Silver, Tungsten, Lead, Uranium, Vanadium, Building stone	* Gold, (1907-45) * Copper, (1907 - 45) * Gold, (1890's)	None	Medium	See Fig.IV-1 (C-2)
17	Dead Mtns	Clay, Copper, Gold, Building stone	Unknown	None	Low	See Fig.IV-1 (C-3)
18	Sacramento Mtns	Copper, Gold, Silver	Gold and silver	None	Low	See Fig.IV-1 (C-4)
19	Goffs	Gold, Silver, Copper, Building stone, Mica, Mercury, Barite	Gold and silver	None	Medium	See Fig.IV-1 (C-3)

FIGURE IV - 1
MINERAL RESOURCES CLASSIFICATION CHART



Resource - A concentration of naturally occuring solid, liquid, or gaseous materials in or on the earth's crust, in such form that economic extraction of a commodity is currently or potentially feasible.

Identified Resources - Specific bodies of mineral-bearing material whose location, quality, and quantity are known from geologic evidence supported by engineering measurements with respect to the demonstrated category.

Undiscovered Resources - Unspecified bodies of mineral-bearing material surmised to exist on the basis of broad geologic knowledge and theory.

Reserve - That portion of the identified resource from which a usable mineral and energy commodity can be economically and legally extracted at the time of determination. The term "ore" is also used for reserves of some minerals.

The following definitions for measured, indicated, and inferred, are applicable to both the Reserve and Identified-Subeconomic Resource Components.

Measured - Material for which estimates of the quality and quantity have been computed, within a margin of error of less than 20 percent, from analyses and measurements from a closely spaced and geologically well-known sample sites.

Indicated - Material for which estimates of the quality and quantity have been computed partly from sample analyses and measurements, and partly from reasonable geologic projections.

Demonstrated - A collective term for the sum of materials in both measured and indicated resources.

Inferred - Material in unexplored but identified deposits for which estimates of the quality and size are based on geologic evidence and projection.

Identified-Subeconomic Resources - Known deposits not now minable economically.

Paramarginal - The portion of subeconomic resources that (a) borders on being economically producible or (b) is not commercially available solely because of legal, political, or technological circumstances.

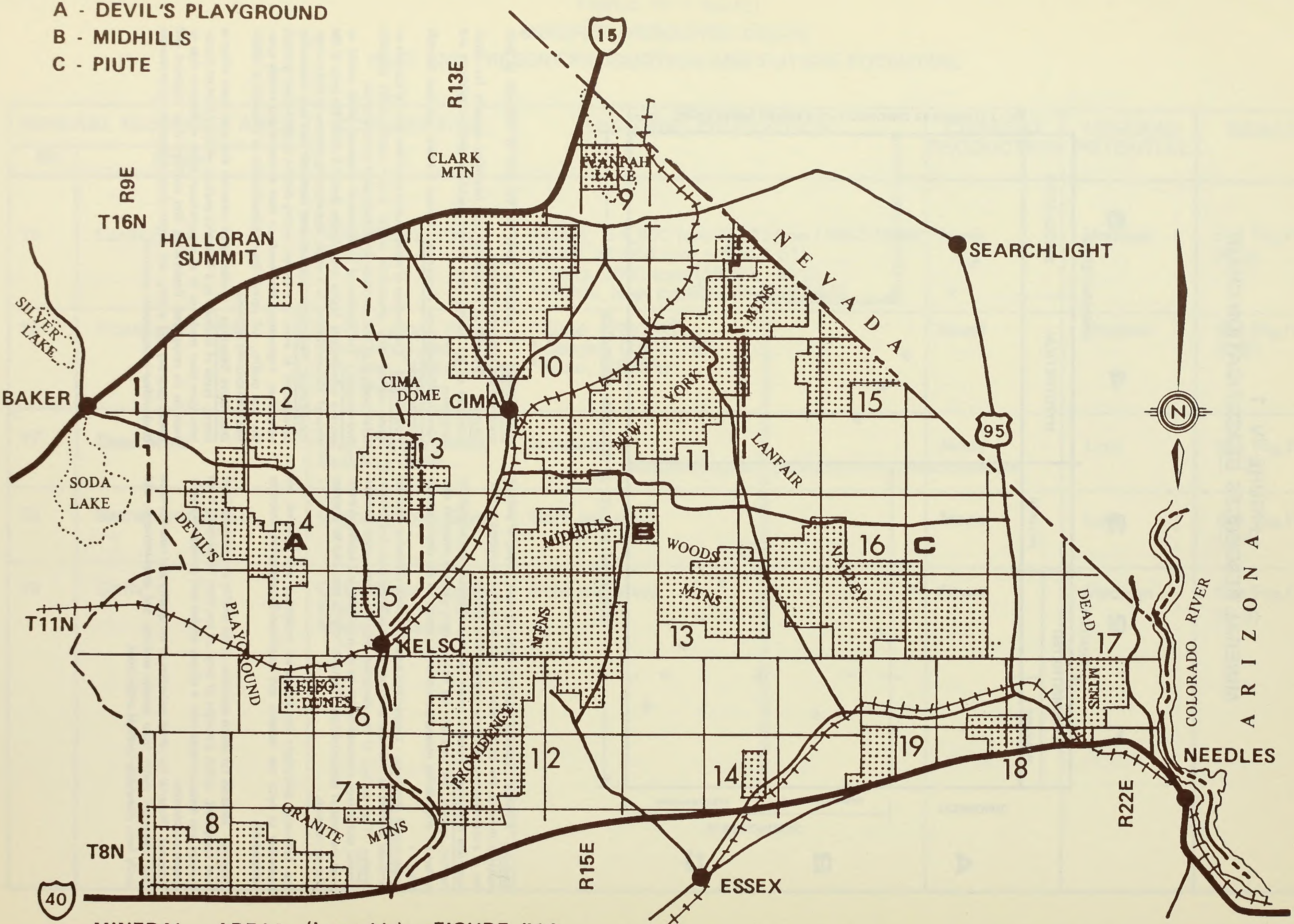
Submarginal - The portion of subeconomic resources which would require a substantially higher price (more than 1.5 times the price at the time of determination) or a major cost-reducing advance in technology.

Hypothetical Resources - Undiscovered materials that may reasonably be expected to exist in a known mining district under known geologic conditions. Exploration that confirms their existence and reveals quantity and quality, will permit their reclassification as a reserve or identified subeconomic resource.

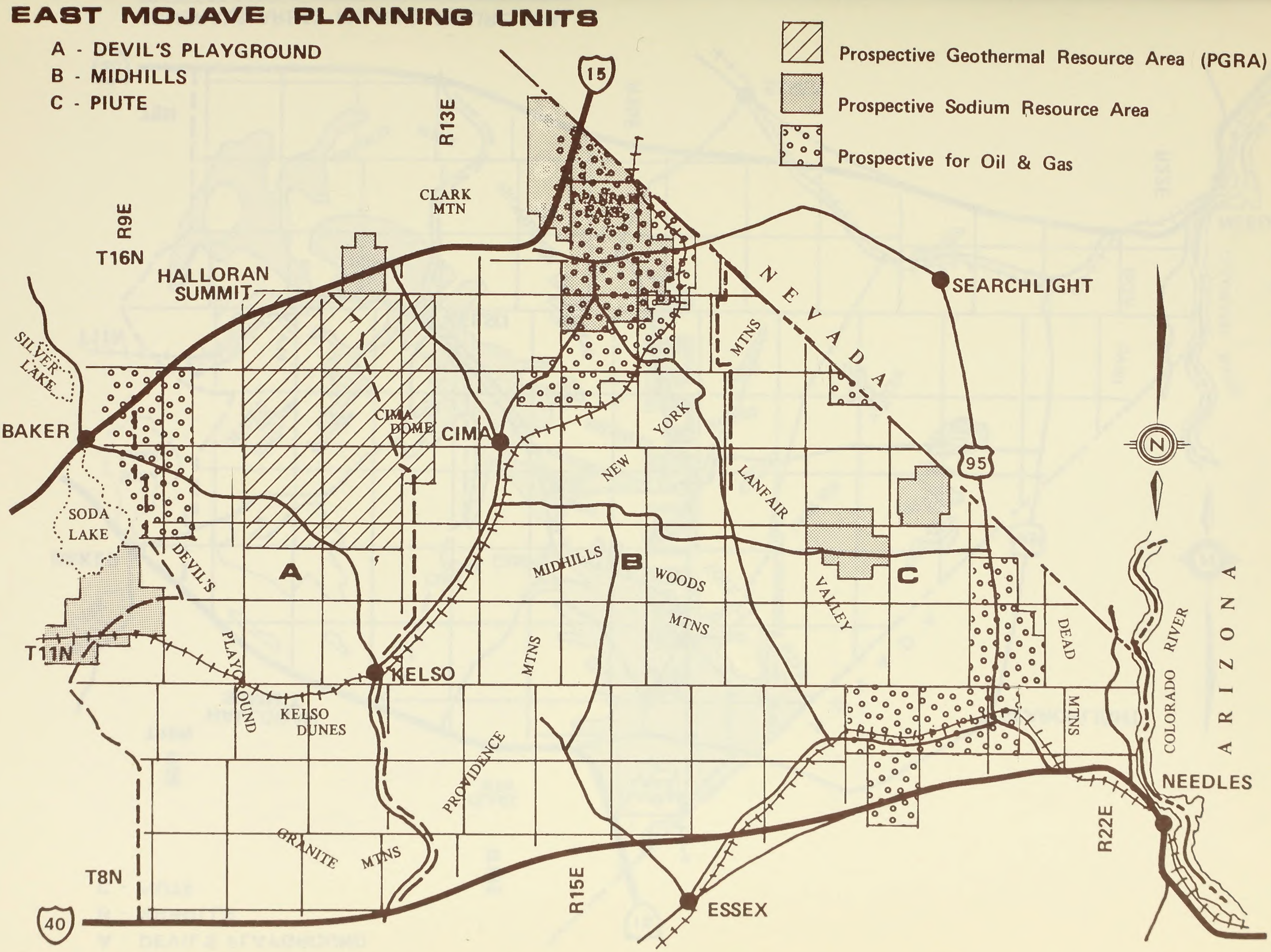
Speculative Resources - Undiscovered materials that may occur either in known types of deposits in a favorable geologic setting where no discoveries have been made, or in as yet unknown types of deposits that remain to be recognized. Exploration that confirms their existence and reveals quantity and quality, will permit their reclassification as reserves or identified-subeconomic resources.

EAST MOJAVE PLANNING UNITS

A - DEVIL'S PLAYGROUND
B - MIDHILLS
C - PIUTE



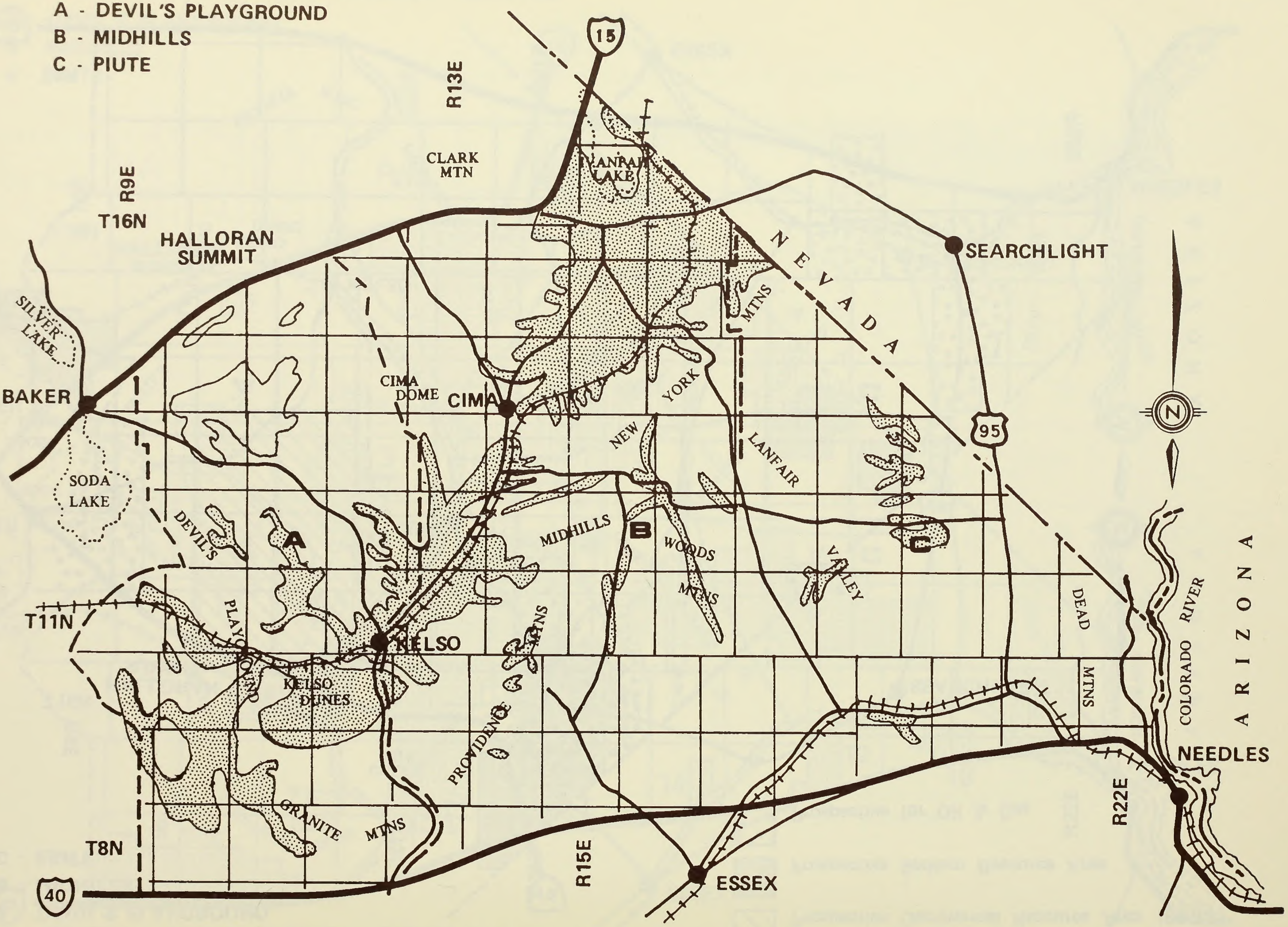
MINERAL AREAS (Locatable) FIGURE IV-2



MINERAL AREAS (Leaseable) FIGURE IV-3

EAST MOJAVE PLANNING UNITS

A - DEVIL'S PLAYGROUND
B - MIDHILLS
C - PIUTE



MINERALS AREAS (Saleable) FIGURE IV-4

APPENDIX
V

APPENDIX V

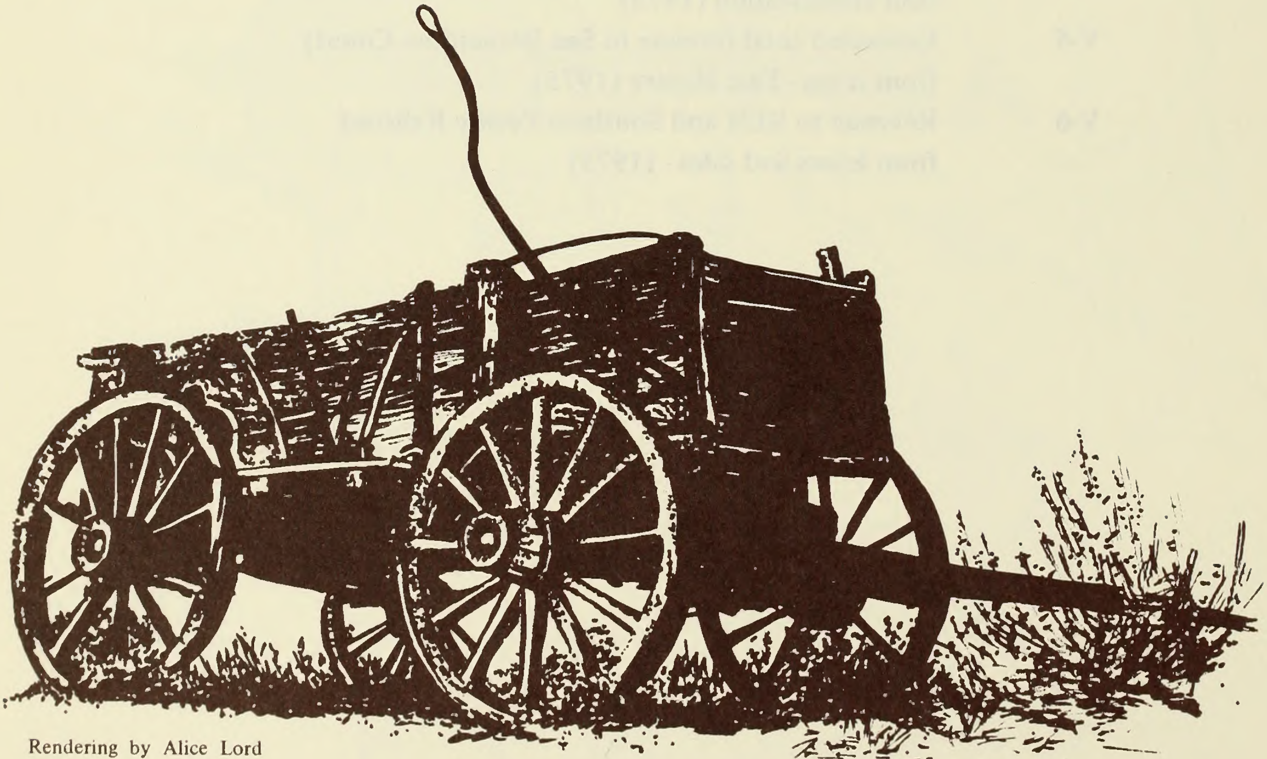
EAST MOJAVE PLANNING AREA ANALYSIS

Lands

A. Introduction

B. Tables

V-1 Population - California Desert and East Mojave (1975)
V-2 Employment in East Mojave compared to corresponding employment sectors of the California Desert
V-3 Income and Employment Estimates - East Mojave (1975)
V-4 Income from Taxes, Sales, and Leases - East Mojave by land classification (1975)
V-5 Estimated total revenue to San Bernardino County from taxes - East Mojave (1975)
V-6 Revenue to BLM and Southern Pacific Railroad from leases and sales - (1975)



Rendering by Alice Lord
San Bernardino, California

LANDS

INTRODUCTION

This appendix shows the population of the East Mojave compared to the California Desert. In addition, the appendix also shows employment by sector, as well as income and employment estimates for the planning area. Income from taxes and leases by land classification is also displayed. Finally, revenue to San Bernardino County from taxes derived from the East Mojave and revenue to BLM and Southern Pacific Railroad from leases and sales is also shown.

TABLE V - 1

POPULATION
CALIFORNIA DESERT AND EAST MOJAVE (1975)

	Number	%
East Mojave	250 *	00.06
Remainder of California Desert	439,750	99.94
TOTAL	440,000	100.00

* Approximately 20% of this total, 50 persons, are part-time residents (e.g., second homes, weekend miners).

TABLE V - 2

EMPLOYMENT IN EAST MOJAVE COMPARED TO CORRESPONDING EMPLOYMENT SECTORS OF THE CALIFORNIA DESERT

Employment Sector	Number Employed in California Desert	Number Employed in East Mojave	East Mojave as % of Calif. Desert
Public Administration *	16,077	45	0.17
Transportation	4,506	21	0.46
Utilities	7,538	3	0.04
Retail Trade	24,701	10	0.04
Beef Cattle Production **	92	23	25.00

Source: East Mojave URA, Riverside and Bakersfield District Offices, 1976
Bays, D., Social-Economic "Profile of the California Desert Study Area"
BLM, Sacramento, California, 1975.

* Employment by Government
** Does not include cattle and feed lots

TABLE V - 3
INCOME AND EMPLOYMENT ESTIMATES IN EAST MOJAVE

Land Use Classification	Source of Income	Direct Employment Estimates ($/Year)	Direct Employment East Mojave (persons)	Indirect Employment	Recipient of Income
ROADS:					
County Road Department	Federal Funds Property Tax Gasoline Tax	$ 190,000	11	Unknown	County employees
Cal-Trans	State Taxes Gasoline Tax Federal Funds	$ 200,000	15	"	Cal-Trans employees
UTILITIES: Pipelines Powerlines Telephone Cable	Consumer Utility Fees	$ 30,000	3	"	Utility Co. employees
RAILROADS:					
Santa Fe Railroad	Railroad User Fees	$ 12,000	1	"	R.R. employees
Union Pacific Railroad	Railroad User Fees	$ 250,000	20	"	R.R. employees
RECREATION: Calif. Dept. of Parks and Recreation - Mitchell Caverns	State Taxes	$ 61,000	5	"	Parks and Rec. empl's
MINING:	Unknown	Unknown	Unknown	"	Unknown
RANGE:	Beef Production Sales *	$ 0.5 million to 1.0 million	23	"	Ranchers, Banks, Ranch Employees

* Income from Beef Production compiled by Desert Plan Staff (DPS)

TABLE V - 3 (cont.)
INCOME AND EMPLOYMENT ESTIMATES IN EAST MOJAVE

Land Use Classification	Source of Income	Direct Employment Estimates ($/Year)	Direct Employment East Mojave (persons)	Indirect Employment	Recipient of Income
WILDLIFE: Calif. Dept. of Fish and Game	State Taxes	$ 50,000	3	Unknown	Fish and Game Emply's
PUBLIC SAFETY: San Bernardino County Sheriff	County Taxes	$ 45,000	3	"	County Sheriff Emply's
CHP(Calif. Highway Patrol)	State Taxes	$ 75,000	5	"	CHP Employees
AVIATION: Federal Aviation Agency	Federal Taxes	$ 16,000	1	"	FAA employees
COMMERCIAL: Retail Business Food Gasoline	Travelers and local People	$ 100,000	10	"	Employees

Source: Employer listed under Land Use Classification

TABLE V - 4

INCOME FROM TAXES, SALES, AND LEASES IN EAST MOJAVE - 1975

Land Classification	Source of Revenue	Income Generated	Recipient of Revenue
RANGE:			
	BLM Grazing leases	$ 48,000	U.S. Treasury County of San Bernardino (50%)
	Cattle head Tax	$ 5,000	County of San Bernardino
	Tax on Range Improvements-Property	$ 11,500	County of San Bernardino
	Southern Pacific Range leases	$ 48,200	Southern Pacific Land Company
VEGETATION:			
	Southern Pacific Sales of Vegetative Products	$ 4,500	Southern Pacific Land Company
PRIVATE PROPERTY:			
Land and Improvements *	Property Tax	$ 169,000	County of San Bernardino
Utilities: Pipelines Powerlines Telephone Cables Communication Sites Railroads	Property Tax (Improvements Only)	$1,045,000	County of San Bernardino
Mining Claims	Property Tax - Mining Claims	$ 23,532	County of San Bernardino
Rights of Ways: Powerlines Pipelines Communication Sites Railroads	BLM Lease Fees	$ 7,568	U.S. Treasury

* Does not include range improvements, mining claims, utilities or railroads

Source. San Bernardino County, Southern Pacific Railroad, and State of California

TABLE V - 5
ESTIMATED TOTAL REVENUE TO SAN BERNARDINO COUNTY FROM TAXES – EAST MOJAVE (1975)

Source of Tax Revenue	Amount	%
Utilities *	$ 1,045,000	83.4
Private Land and Improvements **	169,000	13.4
Livestock Head Tax	5,000	0.4
Range Improvements	11,500	1.0
Mining Claims	23,532	1.8
TOTAL	$ 1,254,032	100.0

* Includes railroads
** Does not include range improvements, mining claims, utilities or railroads.

Note: In 1976, San Bernardino County received approximately 65 million dollars from taxes imposed on land and improvements throughout the county. This figure is based on an average tax rate of $3.00 / $100 dollars assessed value. This $3.00 tax rate does not include the additional tax rate imposed by school districts; whereas the data in Table V-5 above includes county plus school district tax rates.

Source: San Bernardino County Assessors Office.
Telephone conversation with Harry Griffith of the San Bernardino County Assessors Office concerning county wide tax revenue from land improvements.

TABLE V - 6

REVENUE TO BLM AND SOUTHERN PACIFIC RAILROAD FROM LEASES AND SALES

Source of Revenue	Amount	%
BLM Grazing leases *	$ 48,000	44.3
BLM Right-of-way leases	7,568	7.0
Southern Pacific Range leases	48,200	44.5
Southern Pacific Vegetative sales	4,500	4.2
TOTAL	108,268	100.0

* By law, San Bernardino County receives 50% of BLM Grazing lease fees.

Source: BLM - Riverside District Office and
Southern Pacific Railroad

APPENDIX
VI

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APPENDIX VI

EAST MOJAVE PLANNING AREA ANALYSIS

Selected Laws and Policies affecting the management of environmental and cultural characteristics of BLM Lands

A. Recreation and Environmental Values

B. Cultural Resources

C. Wildlife and Vegetation

Rendering by Alice Lord
San Bernardino, California

1. *"The Bureau shall manage lands to . . . . preserve and protect natural resources and values"*, (73 CFR 6000.0-2).

2. The Bureau's planning system assumes that *"environmental characteristics of public lands will become increasingly important and that public land use decision making will focus sharply on characteristics which . . . . prevent or counter environmental degradation"*, (BLM Manual 1602.33A).

3. Federal Regulations specifically direct and guide the management of designated areas (43 CFR, Sections 2071 and 6220). Certain of these designated lands in the East Mojave have been withdrawn to further guarantee protection of significant recreational values (P.L.O. S224).

4. Bureau Policy requires that recreation resources be managed commensurate with carrying capacities established to optimize recreational experiences (Director's Memorandum, 11/7/75, Section 6260).

5. Federal Regulations stipulate that while *" . . . . the Bureau will endeavor to provide access for public use and enjoyment of lands with outdoor recreation values . . . . land and roads and trails may be restricted to specified authorized use, or no use, in the interest of public health and safety, or preservation and protection of the lands"*, (43 CFR 6250.0-6). Emergency regulations, which lay the legal basis for the California Desert's Interim Critical Management Plan, additionally authorizes closures or travel regulations on lands in order to:
    - *a.* *Protect the public health and safety.*
    - *b.* *Prevent excessive erosion.*
    - *c.* *Prevent unnecessary destruction of plant life and wildlife habitat.*
    - *d.* *Protect the natural environment.*
    - *e.* *Preserve areas of cultural or historic value.*
    - *f.* *Protect scientific studies or preserve scientific values* (43 CFR 6010.4).

In addition, Bureau Policy requires that *"visitor management, including off-road vehicle control, will be given priority second only to planning and environmental protection"* and that *"the overriding consideration in the decision making process will be given to protection and preservation of environmental values"*, (BLM Manual, Section 1603.12C4).

The Interim Critical Management Plan for the California Desert specifically relates to broader Bureau Policy to vehicular use in the California Desert. The ICMP implements Presidential Executive Order No.11644, which requires that *"the use of off-road vehicles on public lands* *will be controlled and directed so as to protect the resources of those lands, to promote the safety of users, and to minimize conflicts among the various users of those lands".*

The ICMP is subject to periodic revision or updating, as a result of completion of planning unit Management Framework Plans, and changes are expected as MFPs emerge. However, since the ICMP was developed as a result of a concerted, desert wide resource analysis, any change in the ICMP toward lessening restrictions would necessitate a further desert wide analysis. Loosening of the protective safeguards of the ICMP require a desert wide perspective. A restricted, unit by unit perspective could result in the piecemeal allocation of resources to consumptive uses, and dismemberment of the intended, comprehensive, protective character of the Interim Critical Management Plan. On the other hand, tightening of the ICMP with the completion of MFPs may be justified in light of new information of resource values. This interpretation is consistent with recent court decisions involving the BLM, the National Wildlife Federation, and the Environmental Defense Fund.

CULTURAL RESOURCES

The National Environmental Policy Act of 1969 (83. Stat. 852; 42 U.S.C. 4321), establishes national policy for protection and enhancement of the environment. Part of the function of the Federal government in protecting the environment is to *"preserve important historic, cultural, and natural aspects of our national heritage".* Section 102 of the Act directs all Federal agencies to report *"adverse impacts which cannot be avoided if the proposal be implemented"* and to provide *"alternatives to the proposed action".* It also requires reporting of the environmental impact of the proposed action, irreversible and irretrievable committments of resources, and the relationships between local short-term uses of the environment, and maintenance and enhancement of long-term productivity. The Act requires an interdisciplinary approach and directs the Federal agency to consult with other Federal agencies having legal jurisdiction or expertise in the resource involved.

The Council on Environmental Quality Guidelines (40 CFR Part 1500), provides guidelines for compliance with Section 102 of the National Environmental Policy Act and directs Federal agencies to comply with consultation and compliance requirements of the National Historic Preservation Act of 1966. Combining these requirements with those of the National Environmental Policy Act presents a single document, *"which meets all applicable requirements".*

Executive Order No.11593 (Protection and Enhancement of the Cultural Environment), directs all Federal agencies to inventory their cultural resources, to submit to the National Register of Historic Places all qualified sites meeting the criteria, and to protect all nominated sites. It also directs the Federal agencies to use due caution with all cultural resources until the inventory, evaluation, and nomination processes are completed. A leadership posture for the Federal government in cultural resources is made policy in this order.

The National Historic Preservation Act of October 15, 1966 (80 Stat. 915; 16 U.S.C. 470), expands the national policy toward cultural resources to include those of state and local, as well as national significance, which should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people. It also expands the National Register and established the Advisory Council on Historic Preservation, State Historic Preservation Officers, a matching grants-in-aid program for the states, and a matching grants-in-aid program for the National Trust. Section 106 directs all Federal agencies to take into account the effect of it's actions on National Register properties and shall afford opportunities for the Advisory Council on Historic Preservation to comment on the proposed actions and their effects.

The Historic Sites Act of 1935 (49 Stat. 666; 16 U.S.C. 461 et seq), declares it a national policy to identify and preserve for public use, historic sites, buildings, objects, and antiquities of national significance for the inspiration and benefit of the people.

WILDLIFE AND VEGETATION

Federal Legislation
Endangered Species Act of 1973:

This act authorizes the Secretary of the Interior to prepare a list of endangered species (both flora and fauna), for the purpose of protecting the listed species from extinction. The Act provides civil and criminal penalties for destruction or reduction of the population of endangered species.

California Legislation
California Species Preservation Act of 1970-

Like the Federal "Endangered Species Act", the State also utilizes a list of endangered species. The State also lists "rare" species. The State Act does not permit selling of California's endangered or rare species.

* * *

APPENDIX
VII

VII

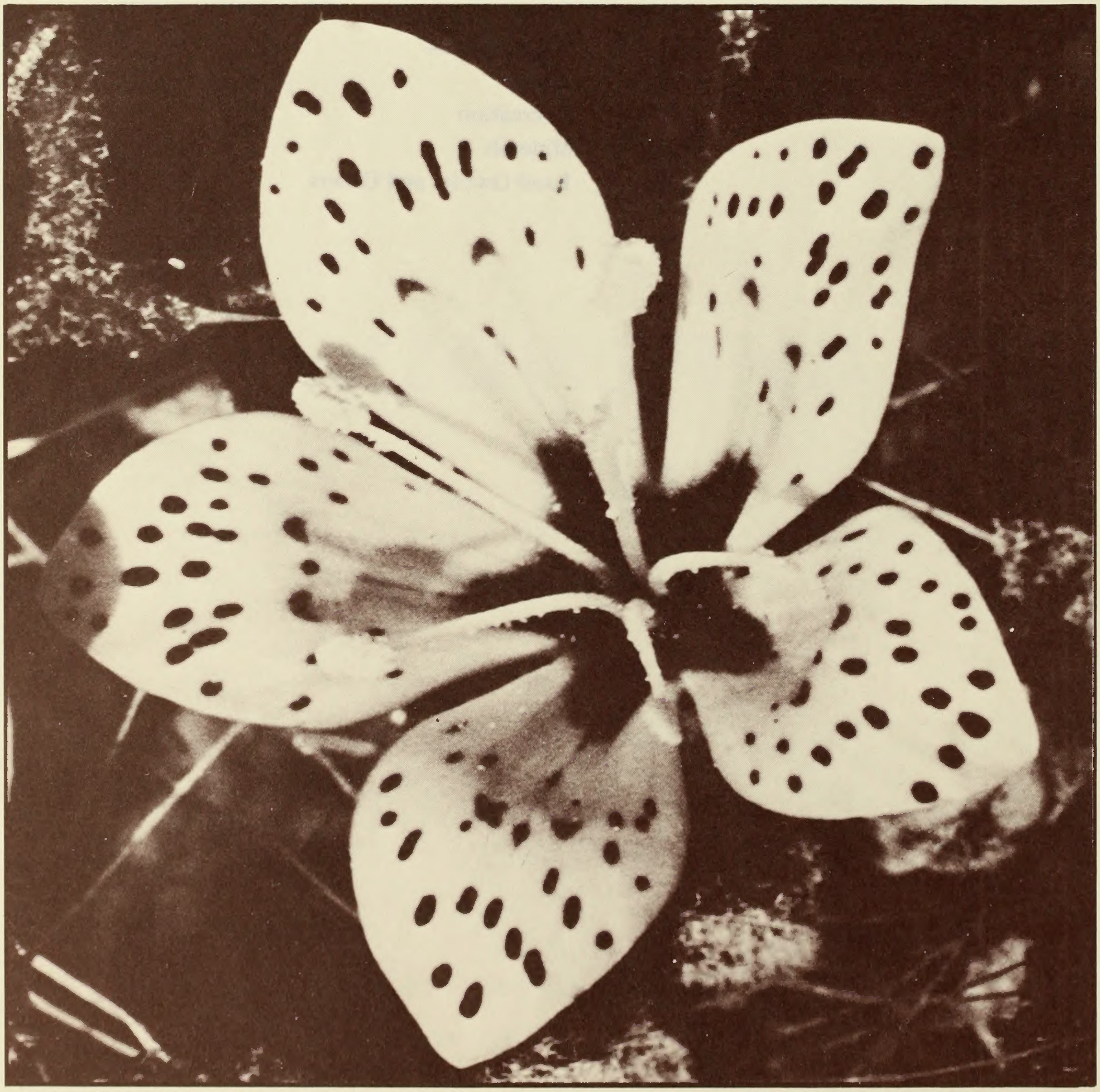
APPENDIX VII

EAST MOJAVE PLANNING AREA ANALYSIS

Public Positions, Expectations, and Social Values

A Introduction

B. Tables
VII-1 All Resources
VII-2 Range
VII-3 Recreation
VII-4 Minerals
VII-5 Land Owners and Others



PUBLIC POSITIONS, EXPECTATIONS and SOCIAL VALUES

INTRODUCTION

This appendix lists public positions, expectations, and social values with respect to the East Mojave Planning Units. The various sources of this information are listed in the tables. The tables in this appendix are organized by resource activity for easy reference. In addition, a category for interests related to more than one resource is also provided, as a separate table. This category was necessary to group or individual interests in several resource avtivities simultaneously.

TABLE VII - 1

PUBLIC POSITIONS, EXPECTATIONS, AND SOCIAL VALUES

RESOURCE: All

INTEREST	POSITION TOWARD LAND USE IN GENERAL	POSITION TOWARD RESOURCES ACTIVITY PRACTICES	POSITION TOWARD SPECIFIC BLM LAND AREAS	POSITION TOWARD SPECIFIC RESOURCE PROJECTS	SOURCE INFORMATION
Organized Conservation Groups and individuals with strong conservation oriented ethic.	Preserve and maintain resources. Do not allow resource destructive land uses. Limit vehicle activity to designated roads and trails.	Grazing should be intensively managed so as not to severely impact long-term productivity of renewable resource. Some conservation groups and/or members would like to see grazing eliminated from East Mojave. Shoot burros. Severely limit and control destructive impact of ORV's on sensitive resources	Protect grazing areas from destruction. Protect and preserve the following areas: 1. Kelso Dunes 2. Cima Dome 3. New York Mtns 4. Granite Mtns 5. Fort Piute 6. Cinder Cones 7. Providence Mtns	Control and/or eliminate grazing, mining and other forms of commercial exploration. Do not permit new utility corridors in East Mojave.	Public participation session. Individual and group leaders who have commented to resource specialists. Letters of concern.
Universities - Education/ Research (pure research)	Preserve and maintain resources.	Eliminate and/or (depending on location) intensively manage grazing. Permit ORV's only on designated roads and trails.	Eliminate grazing on Kelso Dunes. Strong interest in preserving: 1. Cima Dome 2. New York Mtns 3. Granite Mtns 4. Fort Piute 5. Cinder Cones 6. Kelso Dunes 7. Providence Mtns	Impacts from grazing and mining are severe. Do not permit further development of utility projects. Eliminate all forms of commercial exploration.	Discussion with various University Departments involved in pure research.
Universities - Education/ Research (applied research)	Interest in long-term productivity of resources and management of resources.	Generally range from highly critical to indifferent.			

TABLE VII - 2

PUBLIC POSITIONS, EXPECTATIONS, AND SOCIAL VALUES

RESOURCE: Range

INTEREST	POSITION TOWARD LAND USE IN GENERAL	POSITION TOWARD RESOURCES ACTIVITY PRACTICES	POSITION TOWARD SPECIFIC BLM LAND AREAS	POSITION TOWARD SPECIFIC RESOURCE PROJECTS	SOURCE INFORMATION
Grazing interest (Ranchers)	Grazing should continue to be dominant use of East Mojave. Greater right to use land because ranchers pay a fee to use it. Other land uses okay, if they do not conflict with grazing. ORV events destroy roads, trails, and disturb cattle- especially during calving season.	Hunting should be better controlled. Hunters (and others) shoot cattle. Miners and ORV events should pay to use land. Not enough BLM control of mining and ORV events. Feel that livestock use is compatible with any BLM program except ORV.	Grazing allotments should be protected and not reduced in size or withdrawn from grazing use.	BLM should not withdraw land from grazing anywhere.	East Mojave ranchers and High Desert Cattlemen's Assoc.

TABLE VII - 3
PUBLIC POSITIONS, EXPECTATIONS, AND SOCIAL VALUES

RESOURCE: Recreation

INTEREST	POSITION TOWARD LAND USE IN GENERAL	POSITION TOWARD RESOURCES ACTIVITY PRACTICES	POSITION TOWARD SPECIFIC BLM LAND AREAS	POSITION TOWARD SPECIFIC RESOURCE PROJECTS	SOURCE INFORMATION
Rock collecting	Some group members prefer all land open to rock collecting. Others prefer and would accept some controls to maintain long-term collecting opportunities.		Strong interest in keeping the following areas open to rock collecting: 1. Providence Mtns 2. Hackberry Mtns		
Sand Sailing	None known		Want M/C racing and mining activity removed from Ivanpah Lake. Remove berm from Ivanpah Lake.		
Various ORV Groups: - 4WD Clubs - M/C Clubs - Dune Buggy Clubs	Desire minimum controls on ORV activity and access. Willing to tolerate other recreational uses in same space.	Protect only small sites not large areas. Do not want to be excluded from areas where other uses occur.	Open Kelso Dunes. Open Ivanpah Lake Leave all existing roads and trails open to ORV Open Devil's Playground for racing.		Various BLM-ORV Group meetings. East Mojave Citizens Participation Sessions.
Hunting Deer and other Upland Game	Maintain quality habitat for hunting.	Manage grazing so as not to diminish habitat. Where ORV's diminish habitat for hunting BLM should eliminate ORV's and grazing. Burros should be controlled.	The following areas should be maintained for hunting: 1. New York Mtns 2. Providence Mtns 3. Cima Dome 4. Granite Mtns 5. Piute Range		East Mojave Public Participation Sessions. Contacts with hunting groups

TABLE VII - 4

PUBLIC POSITIONS, EXPECTATIONS, AND SOCIAL VALUES

RESOURCE: Minerals

INTEREST	POSITION TOWARD LAND USE IN GENERAL	POSITION TOWARD RESOURCES ACTIVITY PRACTICES	POSITION TOWARD SPECIFIC BLM LAND AREAS	POSITION TOWARD SPECIFIC RESOURCE PROJECTS	SOURCE INFORMATION
Mining	Leave all land open for mineral exploration and development.	Very tolerant of other activities. Dislike vandalism caused to mining operation from recreation uses.			

TABLE VII - 5

PUBLIC POSITIONS, EXPECTATIONS, AND SOCIAL VALUES

RESOURCE: Land Owners and Others

INTEREST	POSITION TOWARD LAND USE IN GENERAL	POSITION TOWARD RESOURCES ACTIVITY PRACTICES	POSITION TOWARD SPECIFIC BLM LAND AREAS	POSITION TOWARD SPECIFIC RESOURCE PROJECTS	SOURCE INFORMATION
Private property owners in Lanfair Valley.	BLM should manage public land in such a way that private property and public land is protected from destruction and vandalism.		Uses of BLM land in Lanfair Valley should not lead to trespassing or destruction of private property.		East Mojave Public Participation Sessions.
Residents of Kelso	BLM should manage public land in such a way that private property and public land is protected from destruction and vandalism.		Before the Kelso Dunes were closed, ORV recreationists using the Dunes would race through Kelso; litter and participate in indiscriminate shooting near the town. Do not re-open the Dunes for ORV recreation.		Discussion with four residents in Kelso at the Kelso resturant.
Other residents of the Planning area.	No concensus exists. Positions range from indifferent to a strong sense of place and a feeling of ownership of the land around them.		Why close the Kelso Dunes? Strong winds push sand all over, so how can ORV's hurt the Dunes ?	Prefer power lines to be concentrated in an existing corridor.	Personal interviews with several residents of the following places: Essex Nipton Goffs Mitchell Caverns

APPENDIX
VIII

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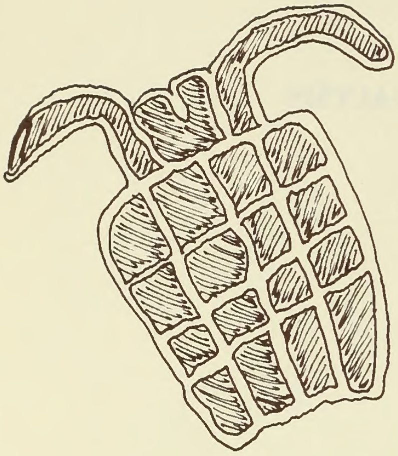
APPENDIX VIII

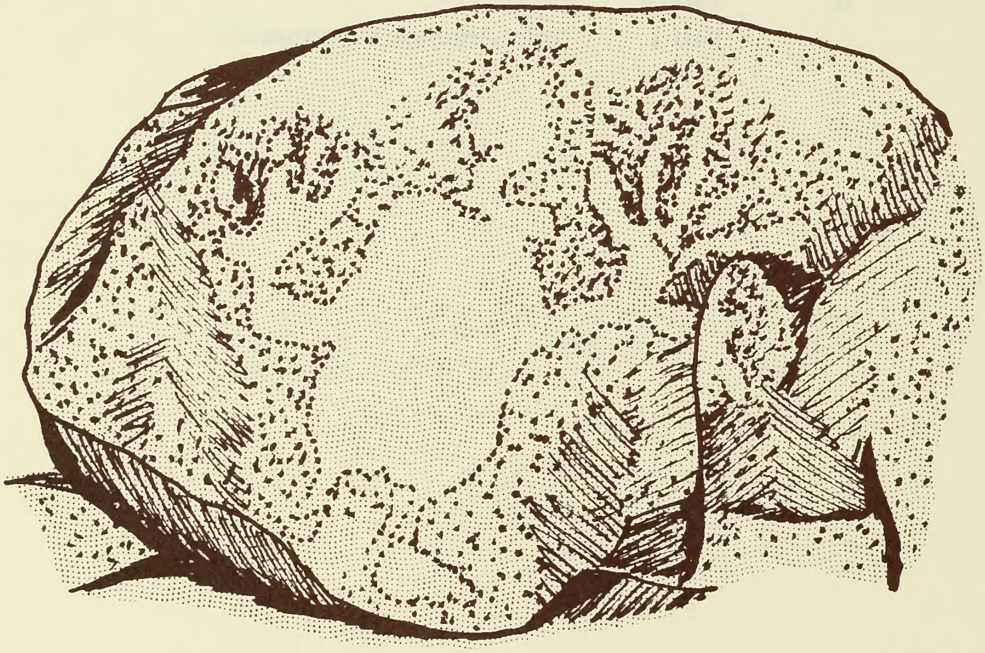
EAST MOJAVE PLANNING AREA ANALYSIS

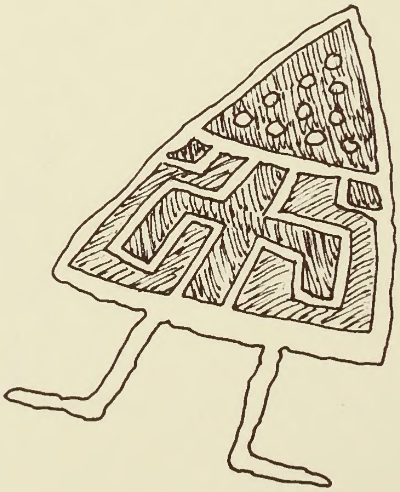
Infrastructure Components

A. Introduction

B. Tables
  VIII-1 Infrastructure Components







INFRASTRUCTURE COMPONENTS

INTRODUCTION

There are two levels of infrastructure located within the East Mojave Planning Units. Regional or interstate communication, energy and transportation corridors make up one level. The other is local facilities and services which include utilities, fire service, law enforcement, schools and access roads. The local facilities and services are of primary concern in this infrastructure analysis, since the regional corridors will be of little service to the area in the short run.

Local utilities present service capabilities range from inadequate to none. Due to the low population within in the planning area there is not the present demand to support a more complex utility system. Increased demand would require development of new systems and/or improvement of existing capabilities.

Fire service for the range and woodland is more than adequate. Domestic fire service is nonexistent and would require development with increased demand. Other sources such as law enforcement and health services are inadequate. Again, increased demand would require additional service being developed.

Schools and the local road systems are at present adequate. Increased demand on the schools would require increased busing service or building of new facilities, depending on the degree of growth. Existing county maintained roads and other feeder roads can handle a significant increase in demand.

The following tables list and analyze each of the Regional (R) and Local (L) components that make up the infrastructure found in the East Mojave. Each facility or service was rated for it s present service capability. An adequate rating was given to the components who are meeting present demand. Inadequate ratings were given to components where service was less than desired, or considered necessary. Where no service exists, a rating of none was given. Ratings were determined by discussions with companies and agencies involved, and with residents and people who work in the planning area.

The potential to handle greater demand was also rated. A high rating was given where the present situation can handle increased demand. A medium rating was given where the present situation can be improved to handle increased demand. A low rating was given where construction of new facilities or hiring of new personnel would be required to handle increases.

TABLE VIII - 1

PLANNING AREA ANALYSIS - EAST MOJAVE PLANNING UNITS INFRASTRUCTURE COMPONENTS

INFRASTRUCTURE	PRESENT SERVICE CAPABILITY				POTENTIAL TO HANDLE GREATER DEMAND			
	Adequate	Inadequate	None		High	Med	Low	
COMMUNICATION:								
Interstate (R) - Microwave	X			Numerous microwave stations are located in planning units.		X		New technology will lessen demand for more microwave sites.
- Telephone	X			A major intercontinental cable runs through planning units.			X	New methods replacing cables.
Local (L) - Radio		X		Many areas during the day have poor reception of radio -AM; reception from powerful, clear channel stations possible.		X		Day reception could be improved with powerful enough station at nearby urban areas.
- Telephone		X		Limited telephone service in planning units.				Telephone lines would have to be constructed to provide many areas with telephone service.
EDUCATION:								
Schools	X			Schools are located in Needles, Baker, and Mountain Pass. Busing is used to transport children who live long distances from these schools.				Additional demand could be handled by increasing staffing of the schools as well as improving the facilities.
COMMUNITY FACILITIES: (L)			X	Nearest community facilities would be in Needles and Barstow			X	Facilities would have to be developed.

TABLE VIII - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE PLANNING UNITS
INFRASTRUCTURE COMPONENTS

INFRASTRUCTURE	PRESENT SERVICE CAPABILITY				POTENTIAL TO HANDLE GREATER DEMAND			
	Adequate	Inadequate	None		High	Med	Low	
WATER SYSTEMS: (L)			X	No water systems are located within the planning units boundaries.			X	Systems would have to be developed.
FIRE SERVICE:(L)								
- Range	X			BLM has personnel located in the planning area during the fire season.	X			Occurrence and severity of fires has not taxed first response capabilities. Mutual aid agreements have resulted in personnel available for large fires.
- Domestic			X	No volunteer departments are available. BLM crews are only source.			X	Fire fighting programs would have to be developed.
MAJOR U TILITIES								
Interstate (R) - Gas	X			Major natural gas line runs the length of the planning units.			X	Additional gas lines could be constructed, provided no other resource conflict occurred.
- Transmission lines (R)	X			Many transmission lines now exist carrying significant percentage of southern California's power.			X	Additional transmission lines could be constructed, provided no other resource conflict occurred.
Local - Transmission lines (L)		X		Many areas do not have power or only have limited capabilities		X		Additional local power lines would have to be constructed to provide many areas with power.

TABLE VIII - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE PLANNING UNITS
INFRASTRUCTURE COMPONENTS

INFRASTRUCTURE	PRESENT SERVICE CAPABILITY				POTENTIAL TO HANDLE GREATER DEMAND			
	Adequate	Inadequate	None		High	Med	Low	
Major Utilities (cont.								
Local (L) - Gas			X	No natural gas is piped into the East Mojave area.			X	Pipelines and related facilities could be constructed provided no other resource conflict occurred.
- Water (L)			X	No water system exists within the planning units boundaries.			X	Water systems would have to be developed utilizing water from outside the region.
- Solid waste (L)		X		No solid waste sites exist within the planning units but there are two (2) close to the area, - Mojave and Needles.			X	Many areas would have potential,as sites - provided no other resource conflict occurred.
- Sewer (L)			X	No sewer system exists within the East Mojave area.			X	A complete system would have to be developed.
TRANSPORTATION Area Wide:								
Interstate and State (R) - Highway system	X			Interstate 15, Interstate 40, and Highway 95 provide good access to planning area. Off-ramps on I-15 average 6 miles apart, while I-40 has one every 10 miles.	X			Projected defeciency date of I-15 is 19 86; and I-40 is 2035.
- Railroads (L) a)passenger service			X	Union Pacific Railroad has a Rail Station, but there is no passenger service.			X	Station at Kelso will probably be closed in the near future due to cost of maintenance.

TABLE VIII - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE PLANNING UNITS
INFRASTRUCTURE COMPONENTS

INFRASTRUCTURE	PRESENT SERVICE CAPABILITY				POTENTIAL TO HANDLE GREATER DEMAND			
	Adequate	Inadequate	None		High	Med	Low	
- Railroads (cont.)								
b) freight service	X				X			Additional demand could be handled by both rail lines.
- Bus lines (L)			X	Bus service is along the Interstate freeways, but stops are infrequent and only at Baker, Barstow, Needles, and Jean, Nevada.		X		Bus service could be increased along the freeways.
- Air routes and commercial airports (R)			X	Nearest major airport is Las Vegas Small airfields are at Barstow, Baker, and Needles.			X	Facilities would have to be developed and airfields improved.
- Waterways			X	None are located in the California Desert.			X	Topography and climate prohibit the possibility.
Local (L) - Mainline and feeder Road System	X			Feeder system is approximately 50% paved and is maintained by the county.	X			Feeder system can handle a much greater volume of traffic.
- Airstrips	X			Two private airstrips are presently in use.		X		Numerous abandoned airstrips could be repaired at some cost.
LAW ENFORCEMENT: (L)								
California Highway Patrol		X		Operating out of Mountain Pass and Needles are about one dozen officers. CHP has responsibility for accidents reported on public			X	Present CHP capabilities are being taxed at this time.

TABLE VIII - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE PLANNING UNITS
INFRASTRUCTURE COMPONENTS

INFRASTRUCTURE	PRESENT SERVICE CAPABILITY				POTENTIAL TO HANDLE GREATER DEMAND			
	Adequate	Inadequate	None		High	Med	Low	
CHP (cont.)				lands as well as other law enforcement duties.				
- California Fish and Game Wardens (L)		X		Two wardens operate in the East Mojave area and have law enforcement capabilities. On a mutual aid agreement they can assist law enforcement agencies.			X	Duties and areas of responsibility are already great.
- San Bernardino County Sheriffs Department(L)		X		Six deputies work in the eastern end of the County, that includes the planning area.The Sheriffs department has responsibility for Search and Rescue and various law enforcement duties.			X	Problems with present manning conditions indicate that future demands will require additional manpower.
- Health Systems (L)			X	Nearest health care facilities are in Needles, Barstow and Las Vegas. Emergency care is not available through para-medic programs.			X	Population growth and medical demands would have to increase significantly requiring an emergency facility or provisions.
- Search and Rescue (L)	X			Search and Rescue teams are located at Baker, Needles and Barstow. Comprised of volunteers, these teams work under the authority of the County Sheriff.		X		Mutual aid agreements between State, Federal and local forces make it possible to handle major problems. Initial response capability could be enhanced to meet greater demand.

APPENDIX
IX

IX

APPENDIX IX

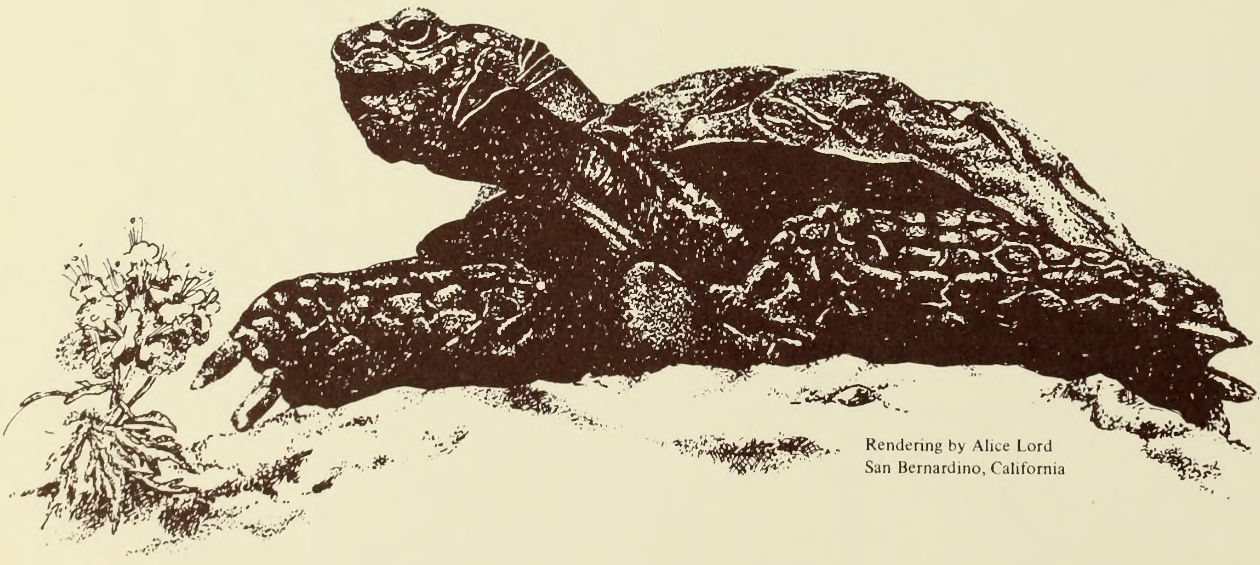
EAST MOJAVE PLANNING AREA ANALYSIS

BLM's Relationship with Documented Plans, Proposals, or Programs

A. Introduction

B. Tables

IX-1 BLM's Relationship with documented plans, proposals, or programs.



Rendering by Alice Lord
San Bernardino, California

BLM'S RELATIONSHIP
WITH DOCUMENTED PLANS, PROPOSALS, OR PROGRAMS

INTRODUCTION

Shown on Table IX-1 are the various plans, proposals, and programs which have been documented and effect the East Mojave Planning Units. Included are the County plans, as well as other plans, proposals, or programs which specifically effect the planning area. Not shown on the tables are regional, State or Federal plans, proposals, or programs which are consistent with BLM policy, and would apply to the planning area in a general manner, or would reiterate the documents analyzed.

Four areas of evaluation of each plan are shown on Table IX-1. The first area is how much BLM participated in the development of the document. A high rating would be where the BLM provided both back-ground information and participation in the decision process. Moderate ratings were given to plans where only information or assistance in decision process was provided. Low ratings were given when very little or no assistance was provided by the BLM. The second area of rating was the predicted level of implementation in the next five years, considering all variables known, with the exception of BLM policy. Some of the plans and programs are already being implemented. Others will most likely be implemented in the next five years. Some will probably not be implemented at all in the next five years.

Assuming implementation, the degree of BLM participation needed for the plan to work, makes up the third area rated. A high rating was given where BLM was a key ingredient to the plan. Where only limited participation is needed, a moderate rating was given. A low rating was given where implementation will occur with little assistance required from the BLM.

The fourth (last) area rated for each plan was whether it was consistent with the policies and laws governing the BLM. A "yes" rating indicates the plan was consistent, and a "no" rating that it was not.

TABLE IX - 1

PLANNING AREA ANALYSIS - EAST MOJAVE
BLM's RELATIONSHIP WITH DOCUMENTED PLANS, PROPOSALS OR PROGRAMS

NAME OF AGENCY OR GROUP	TYPE			NAME OF PLAN, PROPOSAL OR PROGRAM STATEMENT OF PURPOSE OF DOCUMENT	BLM PAST PARTICIPATION			PREDICTED LEVEL OF IMPLEMENTATION IN 5 YEARS			NEEDED BLM PARTICIPATION FOR IMPLEMENTATION			CONSISTENT WITH BLM POLICY		
	POLICY GUIDE	BOTH	SPECIFIC PLAN		HIGH	MOD	LOW	High	Mod	Low	High	Mod	Low	YES		NO
County of San Bernardino	X			General Plan - A land use plan to guide use and development of lands in San Bernardino County.			X		X				X	X		
	X			Conservation and Open Space Element - A plan to protect and conserve open space and the natural environment.		X			X		X			X		
	X			Noise Element - A plan to guide noise mitigation measures and to resolve conflicts between noise sources and human activity.			X			X		X		X		
	X			Seismic Safety Element - Plan to promote public awareness of geologic hazards and to provide guidance during and after a geologic disaster.			X	X				X		X		
		X		Scenic Highway Element - A plan to establish, enhance and protect scenic corridors.			X	X				X		X		
		X		Joint Utilities Management Plan - A plan to maximize the beneficial effects and minimize the adverse effects associated with the siting of major utilities.	X			X			X			X		
		X		General Plan of Regional Parks - A plan to establish park(s) (State or County) in		X			X		X			X		

TABLE IX - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE
BLM's RELATIONSHIP WITH DOCUMENTED PLANS, PROPOSALS OR PROGRAMS

NAME OF AGENCY OR GROUP	TYPE			NAME OF PLAN, PROPOSAL OR PROGRAM STATEMENT OF PURPOSE OF DOCUMENT	BLM PAST PARTICIPATION			PREDICTED LEVEL OF IMPLEMENTATION IN 5 YEARS			NEEDED BLM PARTICIPATION FOR IMPLEMENTATION			CONSISTENT WITH BLM POLICY		
	POLICY GUIDE	BOTH	SPECIFIC PLAN		HIGH	MOD	LOW	High	Mod	Low	High	Mod	Low	YES		NO
County of S.B. (cont.)				numerous areas of the planning units.												
State of Calif. Parks and Recreation		X		California Outdoor Recreation Resource Plan - A plan to establish park(s) (National or State) in numerous areas of the planning units.		X			X		X			X		
		X		California Historical Landmarks - A plan to develop public awareness of identified historical area or activity.			X	X					X	X		
State of Calif. Fish and Game		X		Proposed Wildlife and Recreation Management Area - New York, Mid Hills, Providence and Granite Mtns - A plan for protection and preservation of the natural resources of these areas.			X		X		X			X		
State of Calif. Water Resources		X		Water Quality Control Plan Report - Guideline for water quality in each basin.			X	X					X	X		
Calif. Natural Areas Coordinating Committee			X	Proposal - Establishment of natural areas and scientific research areas.		X		X			X			X		
Calif. Off Road Vehicle Assoc.			X	Kelso Dunes Survey Proposal-Open Kelso Dunes to ORV activity.			X	X			X					X
			X	Current roads and trails designation - Proposal that iden-		X		X			X			X		

TABLE IX - 1 (cont.)

PLANNING AREA ANALYSIS - EAST MOJAVE
BLM's RELATIONSHIP WITH DOCUMENTED PLANS, PROPOSALS OR PROGRAMS

NAME OF AGENCY OR GROUP	TYPE			NAME OF PLAN, PROPOSAL OR PROGRAM STATEMENT OF PURPOSE OF DOCUMENT	BLM PAST PARTICIPATION			PREDICTED LEVEL OF IMPLEMENTATION IN 5 YEARS			NEEDED BLM PARTICIPATION FOR IMPLEMENTATION			CONSISTENT WITH BLM POLICY		
	POLICY GUIDE	BOTH	SPECIFIC PLAN		HIGH	MOD	LOW	High	Mod	Low	High	Mod	Low	YES		NO
Calif. ORV Ass. (cont.)				tifies current roads and gives priorities on future road designations.												
Desert Trails Association			X	The National Desert Trail proposal to Congress to designate a desert trail from Canada to Mexico.			X		X				X	X		
Equestrian Trails Incorporated			X	Proposal to develop the Old Government Road as a hiking and equestrian trail.			X		X			X		X		
North American Land Yachting Association			X	Annual World Championship Program of competition on Ivanpah Lake.	X			X			X			X		
San Bernardino County Museum			X	A plan to develop scientific and interpretive sites in Hackberry Wash for the opalized Rhino bones.			X	X					X	X		
Sierra Club			X	Desert Peaks Program of designated mountain peaks for climbing.			X	X					X	X		
U.S. Department of the Interior, National Park Service			X	Cinder Cones National Natural Land Mark - A plan to establish this area as a land mark.		X		X				X		X		
University of California			X	Research Natural Areas Proposal to establish research natural areas in the Granite Mtns and the Kelso Dunes.			X	X				X		X		

APPENDIX

X

X

APPENDIX X

EAST MOJAVE PLANNING AREA ANALYSIS

A. Introduction

B. Tables
   X-1 Summary of informal and formal agreements

   X-2 Formal and informal cooperative agreements between the BLM and Federal, State and Local Agencies

FORMAL AND INFORMAL COOPERATIVE AGREEMENTS

INTRODUCTION

A review of all Washington Office (WO), California State Office (CA), and Riverside District Office Cooperative Agreements was accomplished. These agreements pertaining to the planning units are summarized in this appendix. Following the descriptive statement on the title of the agreement is the reference number of the agreement. Copies of these agreements are at either the State Office in Sacramento, or at the Riverside District Office.

A total of eighteen cooperative agreements effect all or portions of the East Mojave. Table X-1 lists the activities involved and the office level at which the agreement was made. A summary of the agreements is found on Table X-2.

TABLE X - 1
SUMMARY OF INFORMAL AND FORMAL AGREEMENTS

ACTIVITY	WASHINGTON OFFICE	SACRAMENTO OFFICE	RIVERSIDE OFFICE	TOTAL
Wildlife	1	3	3	7
Vegetation			2	2
G - E - M	3			3
Water Resources	1			1
Archaeology		1		1
Lands		1		1
Planning and Management	1	2		3
TOTAL	6	7	5	18

TABLE X- 2
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
Bureau of Reclamation	Identification of areas of geothermal interest whereupon BLM will refer geothermal applications to Bureau of Reclamation in areas where it has indicated interest. (WO-28)	G-E-M	Will inform Bureau of Reclamation of any proposed leases to be issued in geothermal area.	Will, from time to time, inform the BLM of areas of possible geothermal resource development in which it is interested for water resource development.
	Comprehensive guidelines for coordinated planning and the administration of natural resources. (WO-31)	Multiple	Provides guidelines for all supplemental agreements. BLM will retain full responsibility for management of Reclamation lands not on authorized or constructed Reclamation projects, or within the boundaries of other agency reservations.	BOR will retain full responsibilities for management of Reclamation lands on authorized or constructed projects. (See WO-31 for more information)
National Park Service	Provides guidelines for designating Natural Landmarks in the public land. (WO-33)	Lands	BLM may report any geological or ecological sites which it considers as potential landmarks; State Director will select from list of sites identified by NPS for evaluating studies; BLM may make its own on-site evaluation. State Director will take appropriate steps to protect site identified in National Register.	NPS will give BLM proposal to study team for evaluation, of possible inclusion in the Registry of Natural Landmarks. Study team will notify BLM of on-site inspections. NPS will notify State Director of any sites recommended. NPS will provide guidelines for on-site evaluations that BLM conducts. Sites that appear qualified will be presented to National Parks, Historic Sites, Buildings and Monuments Advisory Board for consideration.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
U.S. Geological Survey	Cooperation agreement concerning oil, gas, and geothermal resources. (WO-56)	G-E-M	Procedures for: field investigation; processing and issuance of drilling permits involving Federal oil, gas, or geothermal resources releases; compliance with terms and conditions of emergency situations; maintenance of field activities inside area of operation; surface use management outside the area of operation are defined by this agreement.	(See WO-56 for more information)
	Establish procedures for coordinating preparation of Environmental Analysis Reports and Environmental Impact Statements. (WO-55)		Establishes procedures for coordinating the Environmental Analysis process; reaching decisions to prepare an EIS; and final EIS preparation.	(See WO-55 for more information)
Fish and Wildlife Service	Interagency Coordination in non-emergency critical habitat determination. (WO-67)	Wildlife	Upon request shall provide information, assistance, and recommendations on possible critical habitat areas. BLM will approve proposed critical habitat determination.	Will determine critical habitats and after agreement with BLM will publish rule-making in Federal Register.
EPA and designated 208 agency	Water Pollution Control agreement of June 5, 1976. (WO-67)	Water Resources	State Director should work closely with State 208 Planning Director to establish joint priorities and consistent timing of planning.BLM should incorporate 208 plan recommendation into planning process. (PAA-MFP)	208 agency should provide significant inputs into planning and develop implementation programs for non-point source pollution control in conjunction with present and prospective BLM budgets and plans.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
U.S. Forest Service and seven California Agencies	Coordinated Resource Planning in California (CA-16)	Multiple	Cooperate in developing and applying coordinated resource management plans on operating units. The priorities and management objectives for Federal or State administered lands will be determined by the responsible agency. Special consideration will be given to resource areas presenting opportunities for coordinated resource planning.	
California Office of Planning and Research	Clearinghouse (CA-14)	Multiple	Will notify the State and when appropriate the applicable Metropolitan Clearinghouse of: 1. All significant building, road and recreation construction projects. 2. All significant proposed land or real property acquisitions, disposals, exchanges, rights of way and leases, as well as major jurisdictional changes 3. All major land use planning. 4. All environment impact statements 5. Use of pesticides, herbicides, or fertilizers where there is a likelihood of off-site or on-site effects on fish and wildlife resources.	1. Coordinate process of review and consultation with State and local officials and planning agencies. 2. Notify the Bureau of local or State comments on proposed programs or projects. 3. When practicable, notify BLM of State or other plans processed which might impact administered lands.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
University of California at Riverside	Agreement on inventory excavation and preservation of historical and archaeological site and antiquities. (C A-11)	Archaeology	1. Furnish the University land status information. 2. Advise the University of planned improvements, developments, or other activities involving excavation or land treatment. 3. Advise the University of applications for disposition or use of lands. 4. Advise the University of planned site resoration of springs, water holes soil and other resources. 5. Recommend to the University, areas needing field study to supply archaeological data for the Bureau's Planning System and management programs. 6. Identify sites or critical areas in the Bureau's recreation inventory and planning system.	1. Assist the Bureau in the maintenance of maps on which have been designated areas known or suspected to have archaeological values. 2. Act promptly on requests for reports by the Bureau and provide recommendations, including cost estimates and identification of Professional Archaeological inventory, research, and protection. 3. Notify the Riverside District Manager prior to carrying out inventory, research or salvage operations under Antiquities Act permits. 4. Report all excavation, disposition and significance of archaeological material on lands administered by the Bur. within at least 3 months after excavation has been completed. a) Submit brief monthly progress reports to the Bureau while the excavations are in progress.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Univ. of Calif. at Riverside -cont.)		(Arch.)	7. Request recommendations from the University as to the potential archaeological impact of all actions alluded to above, and on means of mitigating such impact, and consider such actions as may be required to provide for such mitigation.	5. Assist the Bureau in preparing interpretive materials and displays on public lands. 6. The University agrees that the Bureau will retain the right of unlimited use of all findings or reports. The University agrees to give 30 day written advance notice to the BLM before releasing any findings or reports prepared pursuant to this agreement. The University may copyright and publish reports after giving notice as described above, and each publication by the Univ. shall contain a clause stating that the content of the publication are views of the writer and not necessarily those of the Bureau.
California Department of Fish and Game	Sikes Act Implementation (CA-58)	Wildlife	To develop, maintain, and coordinate comprehensive conservation and rehabilitation programs for fish and wildlife in consultation with the Calif.Dept.of Fish and Game.	To cooperate in the development of comprehensive wildlife habitat management plans and to enter into cooperative agreements for the implementation of those plans.
	Study of rare and endangered species (CA-58)		It is mutually agreed: 1. The Bureau and Dept. may use the services of employees, universities,	

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif.Dept.of Fish and Game - cont.)		(Wildlife)	and colleges, students, or graduate students, to perform field and laboratory studies on endangered and rare species; including but not limited to, observing, feeding, trapping, marking, banding, and releasing of live specimens. 2. Employees,universities,colleges, students or graduate students working on endangered or rare animals shall be only authorized to do so by the State Director of the Bureau-or by the Dir. of the Department. 3. The Bureau and the Dept. are the only parties that can dispose of any captive rare or endangered species or parts thereof. 4. Names of all persons authorized by the Bureau or Dept. to conduct studies on rare and endangered species shall be provided to the parties of this memorandum of understanding and that those persons will be provided written statements indicating they are granted such authorization.	

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif.Dept. of Fish and Game - cont.)		(Wildlife)	5. During the term hereof, the Bur. and the Dept. shall confer semi-annually(or more frequently when necessary), to develop and revise coordinated programs for study of endangered or rare species. The Bur. and the Dept. shall review all study proposals and shall require those authorized to conduct studies to submit written progress reports every 6 months. Upon termination of any major phase of study or the study itself, a progress or completion report shall be prepared and submitted to the Bur. and Dept. It is also mutually understood that there will be a free exchange of data and information during the period covered by this agreement.	
	Maintenance Improvement and Management of Wildlife Resources (CA-45)		1. To make available such facilities, equipment, and assistance as can be utilized in wildlife work consistent with other Bur. requirements.	1. To make available such facilities equipment, and assistance as can be utilized in wildlife work consistent with other Bur. requirements.
			2. To practice those forms of land and multiple-use resource management that will give full consideration to wildlife as one of the desirable products of the public lands.	2. To make recommendations for the regulation of wildlife so that public land wildlife habitat will be maintained in a high state of productivity.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif.Dept. of Fish and Game - cont.)		(Wildlife)	3. To permit, under appropriate agreement or easement, the erection and maintenance of structures needed to facilitate wildlife management activities of the Dept. on public lands. 4. To assist in the enforcement of laws by reporting violations, or suspected violations, to Department personnel. 5. To assist, when requested, in wildlife population surveys, collection and harvest data, insofar as is practical. 6. To advise and consult on all plans to alter or control vegetation and/or non-game wildlife populations by chemical or mechanical means. 7. To consult in the development of cooperative management plans for limiting overabundant or harmful populations of fish and resident wildlife.	3. To apply in writing when the planning of native or exotic species of wildlife is considered on BLM lands. Proposed plants of big game animals, considered desirable, will be approved only by the State Dir. and the Director. 4. To consult before making recommendations to the Fish and Game Commission for the creation of game preserves, refuges, or sanctuaries on BLM lands. 5. To notify the State Director promptly of emergency changes in State fish and game regulations affecting public lands. 6. To erect no sign, and perform no construction on the public lands without first securing an appropriate agreement or easement from the Bureau. 7. To enter into an agreement with the Bureau, relative to the disposition of public land grazing privileges attached to base property, which the Dept. intends to pur-

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif.Dept. of Fish and Game - cont.)		(Wildlife)		chase prior to transfer of title of the property to the Dept.
			8. To consult with the Dept. in carrying out research programs involving the taking of fish and resident wildlife.	8. To notify the Bur. of access, trespass, hazards, or other problems discovered on BLM lands.
			9. To consult prior to the change in use classification of any public lands which have significant wildlife values.	9. To provide reports and correspondence pertinent to management of wildlife on the public lands.
			10. To cooperate in the development or construction of wildlife habitat improvements within the limitation of funds available for such purposes. A cooperative agreement would be executed for each project.	
			11. To consult regarding plans for predatory animal control on BLM lands.	
			12. To recognize that the Calif. Fish and Game Commission is primarily responsible for determining the means by which fish,mammals, birds,and other wildlife shall be used beneficially and for promul-	

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif. Dept. of Fish and Game - cont.)		(Wildlife)	gating rules and regulations for their taking. 13. To advise of road construction plans and solicit and consider Dept. recommendations. 14. To provide reports and correspondence pertinent to management of wildlife habitat on the public lands.	
California Department of Fish and Game	Construction and maintenance of Guzzlers (Riverside Office)	Wildlife	Approve location when not in conflict with another established use.	To construct bird watering structures or guzzlers which have had location approved by BLM.
	Installation of a water catchment in the Piute Mountains (Riverside Office)		BLM will check the site periodically at intervals of no less than 12 month for evidence of use by feral burros.	Will check periodically, and if evident that burros are using site, then a fence will be constructed to exclude burros while allowing bighorn access.
	Installation of a water catchment in Old Dad Mountains (Riverside Office)		Provide desert ranger to monitor construction of the project. Inspect the project at least annually for compliance with cooperative agreement stipulation, bighorn sheep use and burro use. The results of such inspections will be provided in writing to the Fish and Game Dept.	Air-lift all supplies to the construction site. Establish no new vehicle routes (trails) Clean up and leave the project site in as near natural condition as is possible.

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS
BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Calif.Dept. of Fish and Game - cont.)		(Wildlife)		Paint the storage tanks a dark brown or other appropriate color or colors, so that they blend with the environment. Provide protective fencing of the drinker at it's expense if burro use occurs. Inspect the project at least annually for bighorn sheep and burro use and for maintenance purposes. Report the results of such inspection in writing to the East Desert Area Manager, Riverside District, BLM.
Dr. Peter Camanor University of Nevada at Reno	Study Plot and Data Collection (Riverside Office)	Vegetation	Review activities and study results	Tag and collect plants, soils samples and some animal trappings. Notify Area Manager before entry and supply BLM with all reports from study.
Living Desert Association	Allow collecting of resources to further education/research goals (Riverside Office)		1. Collaborate on mutually acceptable resource collecting sites. 2. Provide technical support advice or consultation in preparation of the interpretive exhibits and research designs of the Living Desert Assoc.	1. Collect specimens for exhibits, where possible, from remote areas where these specimens are likely to be destroyed by activities such as mining or road construction. In no case will specimens be removed along scenic roads or in areas

TABLE X - 2 (cont.)
FORMAL AND INFORMAL COOPERATIVE AGREEMENTS BETWEEN THE BLM AND FEDERAL, STATE AND LOCAL AGENCIES

NAME OF AGENCY	TITLE OF AGREEMENT	RESOURCES	ROLE OF BLM	ROLE OF OTHER AGENCIES
(Living Desert Assoc. - cont.)		(Vegetation)		commonly used for recreation or in natural or preserve areas.
			3. To design or supply, as available, interpretive exhibits for loan or or permanent installation at the Living Desert Association's facilities.	2. Notify the Bur. in advance of collections; where, what, and how many items would be collected, so that alternate sites could be used, if necessary. Each collection site will be approved by the District Manager prior to collecting.
			4. Make available Bureau data, personnel and facilities, as available, to better meet our joint goals of environmental education/research.	3. To inform the Bur. of the success or failure of transplanting plant species or other interpretive speicimens.
				4. To recommend to the Bureau, research and interpretive sites where separate or joint research/education projects or facilities might optimally be established.
				5. To make available Association resource experts to advise on the training of Bur. rangers and other personnel.

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AREA (1)	ENVIRONMENTAL &	
	SOURCE(2)	IDENTIFIED FEATURES(3) A
EAST MOJAVE RECREATION LANDS ★	BLM DF&G SP&R	Desert National Recreation La Prime Natural Area Wildlife and Recreation Area Many natural and cultural are area but are evaluated separat
BRISTOL MOUNTAINS	CR-URA SOILS-URA	Archaeological Feature Soils Feature - SIGNIFICAN
CASTLE PEAKS AREA	R-URA BLM DF&G	Geologic Feature - SIGNIFIC Scenic Feature - SIGNIFICA Outstanding Natural Area Scientific Research Natural A Wildlife and Recreation Area
CIMA DOME	R-URA VEG-URA WL-URA BLM	Geologic Feature - SIGNIFIC Scenic Feature - SIGNIFICA Vegetative Feature - SIGNIF Wildlife Feature - SIGNIFIC

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PLANNING AREA ANALYSIS
Summary Decision Guide*
EAST MOJAVE PLANNING UNITS

JANUARY 1977

AREA (1)	ENVIRONMENTAL & CULTURAL RESOURCES				EDUCATION & RECREATION RESOURCES		NATURAL RESOURCES				POLICY & SAFETY CONSTRAINTS					COMMENTS	SUSCEPTIBILITY TO IMPACT (17)						
	SOURCE (2)	IDENTIFIED FEATURES (3) AND SIGNIFICANCE (4)	AREA (5) SIGNIFICANCE	PRIMITIVE (6) VALUES	EDUCATION (7) RESEARCH	RECREATION ACTIVITIES (8) AND SIGNIFICANCE (9)	PRIME (10) GRASS LANDS	MINERAL POTENTIAL (11)			WITHDRAWALS (12) DESIGNATIONS WITHIN AREA	PRIVATE (13) OWNERSHIP OVER 25 %	ORDNANCE (14) HAZARDS	LOW LEVEL (15) MILITARY JET TRAINING ROUTE	SELECTED POLICIES (16) AFFECTING MANAGEMENT OF AREA		SURFACE DISTURBANCE			VISUAL	HABITAT DISTURBANCE		
								Locatable	Saleable	Leasable							Soils Features	Geomorphic Features	Cultural Resources	Visual Resources	Wildlife Features	Vegetation	
																						Physical	Harvest
EAST MOJAVE RECREATION LANDS ★	BLM DF&G SP&R	Desert National Recreation Lands Prime Natural Area Wildlife and Recreation Area Many natural and cultural areas are within this large area but are evaluated separately below	*	*	*	Nature Study · SIGNIFICANT Sightseeing · SIGNIFICANT	*	*			*			*	CH R	East Mojave recreation lands were designated under 43 CFR 2071.1 in May 1972	HIGH TO LOW	HIGH TO LOW	HIGH TO LOW	HIGH TO MODERATE	HIGH TO LOW	HIGH TO LOW	HIGH TO LOW
BRISTOL MOUNTAINS	CR·URA SOILS·URA	Archaeological Feature Soils Feature · SIGNIFICANT		*				*	S&G			*		*	CH		HIGH	LOW	MODERATE	LOW	LOW	LOW	LOW
CASTLE PEAKS AREA	R·URA BLM DF&G	Geologic Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Outstanding Natural Area Scientific Research Natural Area Wildlife and Recreation Area		*		Hunting, Deer · SIGNIFICANT Hunting, Upland Game		*			*			*	R	Other plans, proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan; State Parks and Recreation Plan	HIGH	HIGH	MODERATE	HIGH	MODERATE	LOW	LOW
CIMA DOME	R·URA VEG·URA WL·URA BLM CNACC SP&R	Geologic Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Vegetative Feature · SIGNIFICANT Wildlife Feature · SIGNIFICANT Outstanding Natural Area Prime Natural Area	*		*	Hunting, Deer Hunting, Upland Game · SIGNIFICANT Sightseeing Painting and Photography	*			PGRA	*			*	R	See Social Values Chart · Ranchers, Hunters, ORVs, Miners, Conservation and Education/Research Groups Other plans, proposals or programs pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan	MODERATE	HIGH	MODERATE	HIGH	HIGH	LOW	LOW
CINDER CONES	CR·URA R·URA SOILS·URA BLM CNACC SP&R	Archaeological Feature · SIGNIFICANT Geologic Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Soils Feature · SIGNIFICANT Outstanding Natural Area Prime Natural Area	*	*		Sightseeing	*	*	S&G CC	PGRA	*			*	CH R	See Social Values Chart · Education/Research, Conservation and Mining Groups Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; Desert Trails Plan, Equestrian Trails Plan; National Park Service Plan	HIGH	HIGH	HIGH	HIGH	LOW	LOW	LOW
CLIPPER VALLEY	WL·URA	Wildlife Feature						*				*	*	*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; Desert Trails Plan	MODERATE	LOW	MODERATE	LOW	MODERATE	LOW	LOW
DEAD MOUNTAINS	CR·URA R·URA	Archaeological Feature · SIGNIFICANT Scenic Feature		*				*			*	*	*		CH	Other plans, programs or proposals pertaining to area: Scenic Route Element, San Bernardino County	HIGH	LOW	MODERATE	MODERATE	MODERATE	LOW	LOW
DEVILS PLAYGROUND	WL·URA CNACC	Scenic Feature · SIGNIFICANT Wildlife Feature · SIGNIFICANT Geologic and Sightseeing Area							S&G	PS				*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County	MODERATE	LOW	LOW	HIGH	HIGH	MOOERATE	LOW
FORT PIUTE	CR·URA R·URA SOILS·URA VEG·URA WL·URA BLM CNACC DF&G	Archaeological Feature · SIGNIFICANT Geologic Feature · SIGNIFICANT Historical Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Soils Feature · SIGNIFICANT Vegetative Feature · SIGNIFICANT Wildlife Feature · SIGNIFICANT Historic and Cultural Area Natural Environmental Area Riparian Habitat	*	*		Sightseeing Hiking					*			*	CH WV	See Social Values Chart · Conservation, Hunting, ORVs, Miners and Education/Research Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan; and Equestrian Trails Plan Portions of Fort Piute were designated under 43 CFR 2071.1 in May 1972	HIGH	HIGH	HIGH	HIGH	HIGH	MOOERATE	LOW
GRANITE MOUNTAINS	CR·URA SOILS·URA WL·URA BLM CNACC DF&G	Archaeological Feature · SIGNIFICANT Geologic Feature Scenic Feature · SIGNIFICANT Vegetative Feature · SIGNIFICANT Wildlife Feature · SIGNIFICANT Oesert Environment Primitive Area	*	*	*	Hunting, Deer Hunting, Upland Game Hiking · Oesert Peaks		*			*	*		*	CH R	See Social Values Chart · Hunting, Mining, Conservation, Education/Research and Ranching Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; State Fish and Game Plan; Desert Trails Plan and University of California Plan	HIGH	LOW	HIGH	HIGH	HIGH	LOW	LOW
HALLORAN AREA		None							S&G	PO&G	*			*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; Oesert Trails Plan; and Equestrian Trails Plan	MOOERATE	LOW	MODERATE	MOOERATE	LOW	LOW	LOW
HIDOEN HILLS AND VAN WINKLE MOUNTAINS	R·URA	Scenic Feature						*				*		*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County and State Fish and Game Plan	HIGH	LOW	LOW	HIGH	LOW	LOW	LOW
HOMER MOUNTAIN	VEG·URA R·URA	Scenic Feature Vegetative Feature · SIGNIFICANT		*				*				*		*			HIGH	LOW	LOW	LOW	LOW	MODERATE	HIGH
IVANPAH MOUNTAINS AND MESCAL RANGE	CR·URA SOILS·URA R·URA CNACC	Archaeological Feature · SIGNIFICANT Geologic Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Soils Feature · SIGNIFICANT	*			Hunting, Upland Game Caving	*	*	S&G		*			*	CH	Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County	HIGH	MODERATE	HIGH	HIGH	MODERATE	LOW	LOW
IVANPAH PLAYA	CR·URA	Archaeological Feature · SIGNIFICANT				Archery · SIGNIFICANT Sandsailing · SIGNIFICANT		*		PO&G PS				*	CH	See Social Values Chart · ORVs, Sand sailing and Mining Groups Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; and North American Land Yachting Program	MOOERATE	LOW	HIGH	MOOERATE	HIGH	LOW	LOW
IVANPAH VALLEY	WL·URA R·URA	Scenic Feature Wildlife Feature					*		S&G	PO&G				*		Other plans, programs or proposals pertaining to area; Scenic Routes Element, San Bernardino County	MODERATE	LOW	MOOERATE	MODERATE	MODERATE	LOW	LOW
KELSO ANO CIMA VALLEYS	WL·URA R·URA	Scenic Feature Wildlife Feature							S&G					*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; Oesert Trails Plan; Equestrian Trails Plan and State Parks and Recreation Plan	MODERATE	LOW	MODERATE	HIGH	HIGH	LOW	LOW
KELSO AND MARL MOUNTAINS	R·URA	Scenic Feature						*	S&G	PGR				*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; Oesert Trails Plan; Equestrian Trails Plan; and State Parks and Recreation Plan	HIGH	LOW	HIGH	MODERATE	LOW	LOW	LOW
KELSO DUNES	R·URA VEG·URA WL·URA BLM CNACC SP&R	Geologic Feature · SIGNIFICANT Scenic Feature · SIGNIFICANT Vegetative Feature Wildlife Feature · SIGNIFICANT Outstanding Natural Area Prime Natural Area	*	*	*	Sightseeing Photography	*	*	S&G		*				R	See Social Values Chart · Conservation, ORVs, Grazing, Mining and Education/Research Groups Other plans, programs or proposals pertaining to area: University of California Plan; State Parks and Recreation Plan; and CORVA Plan CORVA Plan is in conflict with current BLM Policy for use of Outstanding Natural Area Designation	LOW	HIGH	LOW	HIGH	HIGH	LOW	MOOERATE
LANFAIR AND PINTO VALLEYS	CR·URA VEG·URA WL·URA BLM CNACC DF&G R·URA	Archaeological Feature · SIGNIFICANT Historical Feature · SIGNIFICANT Scenic Feature Vegetative Feature · SIGNIFICANT Wildlife Feature Research Natural Area Wildlife and Recreation Area	*			Hunting, Upland Game	*			PS		*	*		CH	See Social Values Chart · Grazing, ORVs, Mining and Land Owner Groups Other Plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; and Equestrian Trails Plan	MOOERATE	LOW	HIGH	MODERATE	HIGH	LOW	MOOERATE
MID HILLS	CR·URA VEG·URA WL·URA BLM CNACC DF&G	Archaeological Feature Scenic Feature · SIGNIFICANT Vegetative Feature · SIGNIFICANT Wildlife Feature · SIGNIFICANT Recreation Site Wildlife and Recreation Area	*			Hunting, Deer · SIGNIFICANT Hunting, Upland Game Hiking Camping Horseback Riding	*	*				*			CH	Other plans, programs and proposals pertaining to area; Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; State Department of Fish and Game Plan; Desert Trails Plan and Equestrian Trails Plan	HIGH	LOW	HIGH	HIGH	MODERATE	LOW	MODERATE
NEW YORK MOUNTAINS	R·URA VEG·URA	Geologic Feature Scenic Feature · SIGNIFICANT	*	*	*	Hunting, Deer · SIGNIFICANT Hunting, Upland Game	*	*			*			*	R	See Social Values Chart · Conservation, Grazing, Min·	HIGH	LOW	HIGH	HIGH	HIGH	HIGH	MODERATE

																Plan and State Parks and Recreation Plan							
KELSO AND MARL MOUNTAINS	R-URA	Scenic Feature						*	S&G	PGR				*		Other plans, programs or proposals pertaining to area: Scenic Routes Element, San Bernardino County; Desert Trails Plan; Equestrian Trails Plan; and State Parks and Recreation Plan	HIGH	LOW	HIGH	MODERATE	LOW	LOW	LOW
KELSO DUNES	R-URA VEG-URA WL-URA BLM CNACC SP&R	Geologic Feature - SIGNIFICANT Scenic Feature - SIGNIFICANT Vegetative Feature Wildlife Feature - SIGNIFICANT Outstanding Natural Area Prime Natural Area	*	*	*	Sightseeing Photography	*	*	S&G		*				R	See Social Values Chart - Conservation, ORVs, Grazing, Mining and Education/Research Groups Other plans, programs or proposals pertaining to area: University of California Plan; State Parks and Recreation Plan; and CORVA Plan CORVA Plan is in conflict with current BLM Policy for use of Outstanding Natural Area Designation	LOW	HIGH	LOW	HIGH	HIGH	LOW	MODERATE
LANFAIR AND PINTO VALLEYS	CR-URA VEG-URA WL-URA BLM CNACC DF&G R-URA	Archaeological Feature - SIGNIFICANT Historical Feature - SIGNIFICANT Scenic Feature Vegetative Feature - SIGNIFICANT Wildlife Feature Research Natural Area Wildlife and Recreation Area	*			Hunting, Upland Game	*			PS		*	*		CH	See Social Values Chart - Grazing, ORVs, Mining and Land Owner Groups Other Plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; and Equestrian Trails Plan	MODERATE	LOW	HIGH	MODERATE	HIGH	LOW	MODERATE
MID HILLS	CR-URA VEG-URA WL-URA BLM CNACC DF&G	Archaeological Feature Scenic Feature - SIGNIFICANT Vegetative Feature - SIGNIFICANT Wildlife Feature - SIGNIFICANT Recreation Site Wildlife and Recreation Area	*			Hunting, Deer - SIGNIFICANT Hunting, Upland Game Hiking Camping Horseback Riding	*	*				*			CH	Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Parks and Recreation Plan; State Department of Fish and Game Plan; Desert Trails Plan and Equestrian Trails Plan	HIGH	LOW	HIGH	HIGH	MODERATE	LOW	MODERATE
NEW YORK MOUNTAINS	R-URA VEG-URA WL-URA BLM CNACC DF&G SP&R	Geologic Feature Scenic Feature - SIGNIFICANT Vegetative Feature - SIGNIFICANT Wildlife Feature - SIGNIFICANT Outstanding Natural Area Prime Natural Area Wildlife and Recreation Area	*	*	*	Hunting, Deer - SIGNIFICANT Hunting, Upland Game Desert Peaks - Climbing Backpacking - SIGNIFICANT	*	*			*			*	R WV	See Social Values Chart - Conservation, Grazing, Mining, Education/Research and Hunting Groups Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; Desert Parks Program; State Parks and Recreation Plan; and State Fish and Game Plan	HIGH	LOW	HIGH	HIGH	HIGH	HIGH	MODERATE
OLD DAD MOUNTAIN	CR-URA R-URA BLM	Archaeological Feature Geologic Feature Scenic Feature - SIGNIFICANT		*		Desert Peaks - Climbing		*			*				CH	Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; and Desert Peaks Program	HIGH	LOW	HIGH	MODERATE	LOW	LOW	LOW
PIUTE AND FENNER VALLEYS	R-URA VEG-URA WL-URA	Paleontological Feature - SIGNIFICANT Vegetative Feature Wildlife Feature								PO&G		*	*	*		Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; and Equestrian Trails Plan	MODERATE	LOW	LOW	LOW	HIGH	LOW	LOW
PIUTE MOUNTAINS	R-URA	Scenic Feature						*				*		*			HIGH	LOW	LOW	HIGH	LOW	LOW	LOW
PIUTE RANGE AND CASTLE MOUNTAINS	CR-URA SOILS-URA WL-URA BLM DF&G	Archaeological Feature Scenic Feature Soils Feature - SIGNIFICANT Wildlife Feature - SIGNIFICANT Wildlife and Recreation Area	*	*		Hunting, Upland Game		*		PS	*			*	CH	See Social Values Chart - Hunting and Mining Groups Other plans, programs and proposals pertaining to area: State Fish and Game Plan	HIGH	LOW	HIGH	MODERATE	HIGH	LOW	LOW
PROVIDENCE MOUNTAINS	CR-URA R-URA VEG-URA WL-URA BLM CNACC DF&G SP&R	Geologic Feature - SIGNIFICANT Historic Feature - SIGNIFICANT Paleontological Feature Scenic Feature - SIGNIFICANT Vegetative Feature Wildlife Feature Prime Natural Area Primitive Area Wildlife and Recreation Area	*	*	*	Hunting, Deer - SIGNIFICANT Hunting, Upland Game Caving - SIGNIFICANT Painting and Photography Backpacking - SIGNIFICANT Hiking Desert Peaks - Climbing		*			*			*	CH R	See Social Values Chart - Rockhounding, Mining, Conservation, Education/Research and Hunting Groups Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan; State Parks and Recreation Plan; and Desert Peaks Program	HIGH	LOW	HIGH	HIGH	MODERATE	LOW	LOW
ROUND VALLEY AREA	CR-URA R-URA WL-URA V-URA	Geologic Feature Historic Feature - SIGNIFICANT Scenic Feature - SIGNIFICANT Vegetative Feature - SIGNIFICANT Wildlife Feature	*			Hunting, Deer - SIGNIFICANT Hunting, Upland Game	*				*	*			CH	Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan; State Parks and Recreation Plan; and Desert Trails Program	MODERATE	LOW	HIGH	HIGH	MODERATE	MODERATE	LOW
SACRAMENTO MOUNTAINS	VEG-URA BLM CNACC R-URA	Scenic Feature Vegetative Feature - SIGNIFICANT		*		Hunting, Upland Game		*			*	*	*	*			HIGH	LOW	LOW	HIGH	LOW	MODERATE	LOW
SHADOW VALLEY	WL-URA R-URA	Scenic Feature Wildlife Feature - SIGNIFICANT				Hunting, Upland Game	*			PGRA PS	*			*		Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County	MODERATE	LOW	MODERATE	HIGH	HIGH	MODERATE	MODERATE
WILDHORSE MESA	CR-URA R-URA VEG-URA WL-URA BLM CNACC DF&G SP&R	Archaeological Feature - SIGNIFICANT Geologic Feature - SIGNIFICANT Historic Feature - SIGNIFICANT Scenic Feature - SIGNIFICANT Vegetative Feature Wildlife Feature Prime Natural Area Recreation Area Wildlife and Recreation Area	*	*		Hunting, Deer - SIGNIFICANT Hunting, Upland Game Sightseeingg Caving Hiking Camping		*			*				CH	Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan; State Parks and Recreation Plan, and Desert Trails Program	HIGH	HIGH	HIGH	HIGH	MODERATE	LOW	LOW
WOODS AND HACKBERRY MOUNTAINS, VON TRIGGER HILLS	CR-URA R-URA VEG-URA WL-URA CNACC DF&G	Archaeological Feature Paleontological Feature - SIGNIFICANT Scenic Feature - SIGNIFICANT Vegetative Feature Wildlife Feature Wildlife and Recreation Area	*	*		Hunting, Upland Game Hiking		*			*	*		*	CH	See Social Values Chart - Rockhounding and Mining Groups Other plans, programs and proposals pertaining to area: Scenic Routes Element, San Bernardino County; State Fish and Game Plan and San Bernardino County Museum Proposal	HIGH	LOW	HIGH	HIGH	MODERATE	LOW	MODERATE

NOTE ✱

The summary decision guide is intended to simplify the process of resource, economic and social information review needed before proper decisions can take place on the use of National Resource Lands. Used as an outline, this chart will note specific concerns that should be further evaluated using the Unit Resource Analysis and supplemental information provided in the PAA Technical Supplement.

Use of the summary decision guide is based on use of geographic areas defined for the PAA (Map found on page 11) Thirty-two geographic areas have been defined in the East Mojave, based on environmental, scenic, cultural, and/or political boundaries.

NOTE ★

One of the areas, the East Mojave Recreation Lands, has been broken down into its smaller components to be useful on the chart. (See map found on page 11)

AREA(1) — Delineation based on cultural, political and natural boundaries defined in unit resource analysis

SOURCE(2) —
- BLM .... Bureau of Land Management
- CNACC .... California Natural Areas Coordinating Council
- DF&G .... California Department of Fish and Game
- SP&R .... California State Parks and Recreation
- CR-URA .... Cultural Resources-Unit Resource Analysis
- R-URA .... Recreation-Unit Resource Analysis
- Soils-URA ...... Soils-Unit Resource Analysis
- Veg-URA .... Vegetation-Unit Resource Analysis
- WL-URA .... Wildlife-Unit Resource Analysis

IDENTIFIED FEATURES(3) — Those used to describe the environment and cultural resources considered important in the delineated areas by the various sources. Eight features were evaluated: Archaeology, Geology, History, Paleontology, Soils, Scenic Quality, Vegetation and Wildlife. (Refer Appendix I, Tables 1 and 2)

FEATURE SIGNIFICANCE(4) — Those features identified that were found to be of special importance when compared to the California Desert by the appropriate resource specialist were given a "SIGNIFICANT" rating.

AREA SIGNIFICANCE(5) — Those areas that have a quantity and/or quality of identified features which make the area important in the California Desert. (See Appendix I, Table 3)

PRIMITIVE VALUES(6) — Those areas marked have been recognized as having 50 percent or more of area with an excellent and/or good rating for primitive values. (See R-URA-Step III overlay III-R-3)

EDUCATION/RESEARCH(7) — Those areas marked are recognized as being among the top ten most used areas in California Desert. (See Appendix II Education/Research)

RECREATION ACTIVITIES(8) — Those listed are occurring in the area at a higher than average rate for that activity compared to other areas in the California Desert where the activity occurs. (See Appendix II, Table II-6)

SIGNIFICANT RECREATION ACTIVITIES(9) — Those which occur in a prime area for the activity compared to California Desert (See Appendix II, Table II-6)

PRIME GRASSLANDS(10) — Those areas marked have been recognized as having 25 percent or more of area with high or medium perennial range carrying capacity. (See Range-URA-Step III and overlay RM-III-1)

MINERALS(11).
- Locatable — The PAA areas marked have within them part or all of one or more mineral areas classified as having potential for metallic and some non-metallic mineral resources. (See Appendix IV)
- Saleable — 25 percent or more of the marked PAA area has potential for deposits of fill material, sand and gravel, (S&G) and/or cinders (CC). (See Appendix IV)
- Leaseable — 25 percent or more of the marked PAA area has been classified as having potential for oil and gas (O&G) and/or sodium and potasium (PS) and/or geothermal (PGRA) resources. (See Appendix IV)

WITHDRAWALS AND DESIGNATIONS(12) — Portions of area have been designated and/or withdrawn. (See Lands-URA Step III Withdrawals and Designations, Overlays III-L-6, III-R-1 and 12, Appendix I, Table 1)

PRIVATE OWNERSHIP(13) — Those areas marked have over 25 percent of land in private ownership. (See Lands-URA Step III Ownership, Overlay III-L-1)

ORDNANCE HAZARDS(14) — Those areas marked have portions of area contaminated by WWII military ordnance. (See Lands - Step II Hazards, Overlay III-L-6)

LOW LEVEL JET TRAINING ROUTES(15) — Those areas marked have portions of the area covered by the centerline of jet training routes where significant intrusive noise occurs. (See Lands Step II Noise, Overlay II-L-2)

SELECTED POLICIES(16) — Those areas marked have specific policies governing management with respect to certain resources. "CH" - indicates laws pertaining to management of cultural and historic features. "R" - indicates policies pertaining to management of off road vehicles and other recreation activities. "WV" - indicates laws pertaining to management of wildlife and vegetation. (See Appendix VI)

SUSCEPTIBILITY TO IMPACT(17) — Each area has been analysed by the appropriate resource specialist to generally determine the sensitivity to impact resulting in surface disturbance, visual intrusion and habitat disturbance - specific portions may vary from the generalized rating given the area.

Sensitivity Rating —
- HIGH - is where a slightly evident occurence or series of occurrences results in a negative impact upon the resource.
- MODERATE - is where a distinct occurence or series of occurrences results in a negative impact upon the resource.
- LOW - is where massive occurence or series of occurrences results in a negative impact upon the resource.

Resources Rated —
- Soils - Refer to Soils - URA Step IV and Overlay W-IV-1
- Geology - Refer to Recreation - URA Step III Sightseeing/Interpretive-Geological and Overlay III-R-18
- Cultural - Refer to Cultural Resources - URA Step III A2d-Relative Archaeological sensitivity form
- Visual Resources - Refer to Visual Resource Management URA Step III and Overlays III-R-3, 13 , 14
- Wildlife - Refer to Wildlife URA - Step III
- Vegetation - Refer to Vegetation URA - Step III

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